



COMMUNITY TELEVISION REVIEW

Access & Emerging Technology

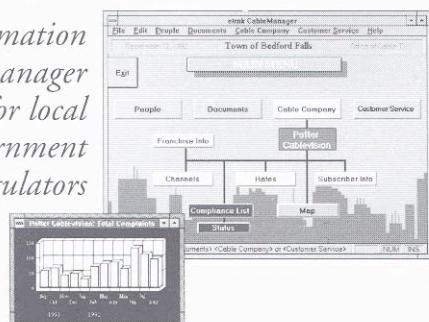
Countdown to the 21st Century

A Publication of the
Alliance for Community Media
Volume 15, Number 6

CableManager™

for Windows™

*The information
manager
for local
government
cable regulators*



Quickly and easily process and analyze subscriber complaints, track franchise compliance and much, much more. Includes the new *Cable Act of 1992* in a unique hypertext format. There's nothing else like it.

Requires IBM PC or compatible running Microsoft Windows 3.1. Single cable system version is \$495 plus \$10 shipping and handling. Full working demo just \$10. Satisfaction guaranteed.

etrok

1550 North Fuller Avenue
Suite 305
Los Angeles, CA 90046

213 876-8169



Unattended Videotape Playback

LEIGHTRONIX Event Controllers provide unattended program playback for your community access, educational and government cable channels.

PRO-16

The all in one playback controller

■ Control for 16 VCRs ■ Internal 16 x 4 routing switcher ■ \$4995.00

TCD-RT

Ideal for expanding systems

■ Control for 64 VCRs ■ Control for external routers ■ \$2995.00

MINI-T-IR

The low cost solution for automated playback

■ Control for 4 VCRs ■ Internal 5 x 1 switcher ■ \$695.00

C-VOICE Telephone Remote Control

Telephone remote control for your playback equipment

May be used in conjunction with TCD-RT and PRO-16 control systems ■ \$1195.00

For more information, call or write

LEIGHTRONIX, INC.

2330 Jarco Drive, Holt, MI 48842 ■ (517) 694-5589 ■ FAX (517) 694-4155

“...increasing awareness
of Community Television
through educational programs
and participation in court cases
involving franchise enforcement
and constitutional questions
about access television.”



An Invitation to Join the

Alliance for Communications Democracy

Become an Alliance Subscriber for \$350/year and receive detailed reports on current court cases threatening access, pertinent historical case citations, and other Alliance activities.

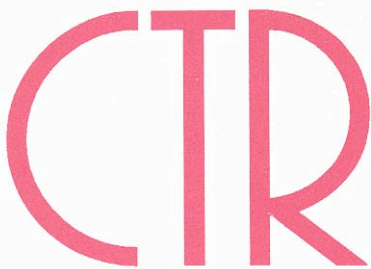
- Voting membership open to non-profit access operations for an annual contribution of \$3,000.
- Non-voting memberships available to organizations and individuals at the following levels:

- Alliance Associate, \$2500 - copies of all briefs and reports.
- Alliance Supporter, \$500 - copies of all reports and enclosures.
- Alliance Subscriber, \$350 - copies of all reports.

Direct membership inquiries to Richard Turner, 'Ōlelo: the Corporation for Community Television, 960 Māpunapuna, 2nd floor, Honolulu, HI, 96819, or phone (808) 834-0007 ext.1714.

Voting Members: Chicago Access Corporation, Illinois • Montgomery Community Television, Inc., Virginia • Columbus Community Cable Access, Inc., Ohio • Staten Island Television, New York • Boston Community Access & Programming Foundation, Inc., Massachusetts • GRTV, Grand Rapids, Michigan • Tuscon Community Cable Corporation, Arizona • 'Ōlelo: The Corporation for Community TV, Hawaii.

Non-voting Members: Multnomah Cable Regulatory Commission, Oregon • Oakland County Cable Corporation, Michigan • Ann Arbor Community Access Television, Michigan • Capital Community TV, Oregon • Multnomah Community TV, Oregon • Alliance for Community Media, Central States Region • Alliance for Community Media, Far West Region.



NOVEMBER/DECEMBER 1992
VOLUME 15, NUMBER 6

CTR EDITORIAL BOARD

Dirk Koning, CHAIR
Paula Manley, INFORMATION SERVICES CHAIR
Larry Beer, Lynn Carillo-Cruz, Bob Devine,
Heidi Mau, Vel Wiley, Sabrina Zackery

EDITOR-IN-CHIEF THIS ISSUE

Martha Schmidt

MANAGING EDITOR

Tim Goodwin

OPERATIONS

Sue Fitzgerald, John Haafke

NATIONAL OFFICE

T. Andrew Lewis, Executive Director
Judy Saunders, Operations Assistant

**ALLIANCE for COMMUNITY MEDIA
BOARD of DIRECTORS**

Andrew Blau, CHAIRPERSON
Fernando Moreno, VICE CHAIRPERSON
Kari Peterson, SECRETARY
Carl Kucharski, TREASURER
Fiona Boneham, Pamela Brown, Alan Bushong,
Brian Girtman, Karen Helmersen, James Horwood,
Paula Manley, Sharon Mooney, Julie Omelchuck,
Gerry Paulsen, Penelope Place, Anthony Riddle,
Maria Rocha, Mark Sindler, Greg Vawter,
David Vogel, LaMonte Ward, Rika Welsh.

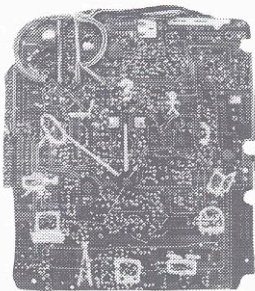
Community Television Review is published bi-monthly by the Alliance for Community Media, Inc (formerly the National Federation of Local Cable Programmers) Subscriptions \$25 a year for six issues. Send subscriptions, memberships, address changes and inquiries to the Alliance for Community Media, 666 11th St. NW, Suite 806, Washington, DC 20001-4542. Phone 202/393-2650 • Fax 202/393-2653.

Address editorial and advertising inquiries to *Community Television Review*, 15 Ionia SW, Suite 201, Grand Rapids, MI 49503-4113. Phone 616/454-6663 • Fax 616/454-6698.

Bulk orders for additional copies considered individually. Contact the national office for information on rates and delivery.

© 1992 by the Alliance for Community Media, Inc. (formerly the National Federation of Local Cable Programmers). Prior written permission of the Alliance for Community Media required for all reprints or usage.

Produced through the studios of City Media, Inc.



In this Issue

COLUMNS

T. Andrew Lewis **1** / Andrew Blau **4** / Alan Bushong **5** / Karen Helmersen **5**

CONNECTIONS

Hometown Festival / Publications Available / Call for Submissions / Membership Form / Accessing the Alliance **3**

ACCESS & EMERGING TECHNOLOGY

Countdown to the 21st Century, *Martha Schmidt* **7** / The Future of a Public, *Robert Devine* **8** / The Great Equalizer, *Howard Reingold* **10** / The Creation of Community Communications Centers, *Evelyn Pine* **12** / The State of Telecommunications in Vermont, *Lauren-Glenn Davitan* **14** / The Next Generation of Delivery Systems, *Abigail Norman* **15** / Techline Headline Story Excerpt Service, *T. Andrew Lewis* **16** / Pixel Dust and Rainbow Slush: Dichotomies of Digital Distribution, *Dirk Koning* **17** / Perspectives on Policy, Technology and Markets for the Future, *Thomas A. McCain* **17** / The Alliance Bulletin Board, et al **18** / The Well and Computer Networks **19** / The Electronic Frontier Foundation **19** / Computer Networks and the Emergence of Global Civil Society, *Howard H. Frederick* **20** / The Local Civic Networks Project, *Richard Civile* **21** / Creating a Public Interest Vision for the Future, *Kathryn C. Montgomery* and *Jeffrey Chester* **22** / The Marriage of Television and Computers, *Alan Bushong* **23** / Swinging Towards New Formats, *Frederick Thomas* **24** / Technology Trickle Down: Affordable and Versatile, *Heidi Mau* **24** ...and much, much more.

On the cover: "CTR: A Timely Issue" – Clock and photograph by Widdicombe Schmidt

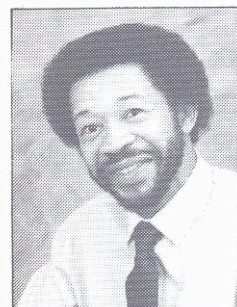
Emerging Technology – Evolving Identity

There could be no more appropriate a setting than this issue to convey to you this brief, personal message about our organization's change of name. During the more than 16 years preceding, the NFLCP has come to be known as a scrappy bunch of dedicated individuals and organizations dedicated to the concept and success of cable access television.

This issue of CTR celebrates technological evolution as the primary source through which we define and activate new genres of community communications media. It was these emerging technologies that led to the realization that the time had come for us to allow our identity to evolve. The activities and interests of our sundry membership now include more than cable television; radio, computer networks, wireless cable, facsimile and other communications media yet to come are all within our arena. Among our primary goals is to ensure access to all such electronic media.

As the Alliance for Community Media (or the "Alliance", for short), we will continue and expand upon the mission, efforts and successes of our forerunner – NFLCP in the decades to come. Let us begin a celebration of our new identity now that will culminate in Atlanta at our annual gathering this July!

—T. Andrew Lewis, Executive Director



Get in touch with your community with the Interactive Video Bulletin Board

THE CHANNEL THAT TAKES REQUESTS:

- Lets viewers choose what they see.
- Handles up to 999 topics of any length.
- Prints reports of what viewers choose.
- Typically receives 1,000 requests/day.
- Gives documented proof of viewership.
- Uses PC word processor files as input.
- Fast, easy setup and maintenance.

What current owner-operators say about the Interactive Video Bulletin Board:

"I can watch it taking calls from my office, and know that we're serving the community. The feedback helps us understand our viewing audience's likes and dislikes."

-David Vogel, General Manager,
Community Television of Knoxville

"The system is amazing in its simplicity and power. It involves the viewing audience directly and documents every phone call it receives. It helps make us indispensable to the community."

-Fred Thomas, Executive Director,
Fairfax Cable Access

"Since installing the Interactive Video Bulletin Board, we've gotten more interest and participation from non-profits than we had in the last 10 years. It's less work, more effective, and it's fun for viewers to use!"

- Lynn Carillo-Cruz, Executive Director,
Quote...Unquote, Albuquerque

"It's the lowest-cost, highest-impact service we offer to local non-profits. During September...participating organizations reported that an average of 65% of their calls resulted from viewership of the Interactive Video Bulletin Board."

- Barbara Popovic, Executive Director,
Chicago Access Corporation

For a brochure and videotape, contact:

INTERACTIVE PUBLICATIONS

1651 N. DAYTON STREET, SUITE 306, CHICAGO, ILLINOIS 60614
312-642-0884 • FAX: 312-642-1735

CONNECTIONS

1993 Hometown Video Festival

The Alliance for Community Media is accepting entries for the 1993 Hometown Video Festival. Entry deadline is March 5.

Now in its 16th year, Hometown is the oldest and largest video competition honoring the work of local cable programming producers. Last year, 2,087 video tapes were entered from 412 cities in 40 states and three Canadian provinces.

The Festival recognizes outstanding local programs that are produced by or for public, educational, and government access facilities and by local origination departments of cable systems. Hometown is unique because the works of media professionals are judged separately from those produced by community volunteers. In addition, the video tapes entered are judged on how they address community concerns as well as technical quality and execution.

This year's Festival consists of 37 categories, including four "Overall Excellence" categories which honor public, educational and governmental access facilities and cable systems.

Hometown entries are judged in a two-step process which involves over 30 different access and local origination operations as preliminary judging sites. Those sites select four finalists in each category assigned to them. The finalists then proceed to a single final judging site for selection of the winners in all categories.

Hometown winners will be announced and awards presented on July 22, 1993 in Atlanta, GA at the Awards Night Ceremony during the annual convention of the Alliance for Community Media.

Sustaining sponsors of the 1993 Hometown Video Festival include Arts & Entertainment, Cable World, Commodore Business Machines, Multi-Channel News/Cablevision, and Videomaker.

Category sponsors include Bravo, Cablevision Systems Development Corporation, Cox Cable Communications, Mind Extension University, and 3M Professional Audio/Video & Specialty Products Division.

For further information, contact

Randy VanDalsen, c/o The Buske Group, 2015 J St., Suite 28, Sacramento, CA 95814, (916) 441-6277.

Publications Available

A brochure outlining Alliance for Community Media publications and materials is available from the national office. It includes numerous books, educational packets, videotapes, the availability of mailing lists and back issues of CTR.

Contact the Alliance. Address and number below.

Special Thanks

Many thanks to Chuck Sherwood, Executive Director of Cape Cod (MA) Community TV for underwriting copies of this issue of CTR for key Congressional members, their committee staff, and the new administration.

Thanks also to guest editor-in-chief Martha Schmidt for underwriting the cost of heavier stock on the cover of this issue.

Accessing the Alliance

Jobline. For access jobs across America, or to post job openings, call (202) 393-2653.

Bulletin Board. To connect, call (217) 359-9118, and set your computer's modem to 300, 1200 or 2400 baud, 8 bits, 1 stop bit, no parity.

National Office. Call (202) 393-2650, fax (202) 393-2653, or write 666 11th St. NW, Suite 806, Washington, DC 20038-4542.

Call for Submissions/Proposals for Upcoming CTR Issues:

Issue: Access & Democracy

Deadline: March 1, 1993

Fax (503) 645-8561

Call in (503) 629-8564

TDD (503) 629-8564

or Send Attn: Paula Manley

c/o Tualatin Valley Community

Access, 1815 NW 169th Place, Suite 6020, Beaverton, OR 97006-4886

Format: up to 500 words

Subject: Tell Your "Stories from the Grassroots"

How is access helping to revitalize grassroots democracy in your town? Stories should demonstrate how access contributes to social and political action in communities throughout the country and the world. Share your stories with us!

If you haven't joined the Alliance for Community Media, here's how to become a member.

MEMBERSHIP ENROLLMENT FORM

(Please check all that apply)

Yes, I want to join the Alliance for Community Media. I am a(n):

- ☐ Access Staff Member ☐ Access Board Member
☐ Community Producer ☐ Cable Regulatory Staff or Board Member
☐ Other _____

ORGANIZATIONAL

- ☐ Over \$100,000 annual revenues \$275
☐ \$10,000 to \$100,000 annual revenues \$175
☐ Under \$10,000 annual revenues \$75

All organizational memberships expire on September 30th of each year. Join between April and September and pay half the annual rate.

INDIVIDUAL

- ☐ Affiliated (available only if your organization is a member: includes paid staff, volunteer producers, board members, or other unpaid individuals associated with a member organization)
☐ Staff \$35 ☐ Volunteer \$25
☐ At-Large (includes professional or volunteer individuals who are not associated with a member organization)
☐ Advocate (volunteer) \$30 ☐ Professional (salaried) \$75
☐ Patron \$120 ☐ Life \$1,000

All individual memberships expire one year from the last day of the month in which you join.

SPECIAL CONTRIBUTION

I am including an additional amount to further support the activities of the Alliance and help broaden participation in the organization.

- ☐ \$10 ☐ \$15 ☐ \$25 ☐ \$40 ☐ \$50 ☐ \$ _____

SUBSCRIPTION ONLY (not a membership)

- ☐ Community Television Review (6 issues) \$25

(Canada \$30, other non-U.S. \$35) CTR Subscriptions expire one year from the last day of the month in which you sign up.

TOTAL AMOUNT ENCLOSED \$ _____

NAME AND ADDRESS (Please print)

Membership name (individual or organization) _____

Contact person (organizational members only) _____

Mailing Address _____

City _____ State _____ Zip _____

Phone (_____) _____ Fax (_____) _____

Name of organization of affiliation (affiliated members only) _____

TYPE OF ORGANIZATION

- ☐ Nonprofit ☐ Educational institution ☐ Library
☐ Government ☐ Cable system ☐ Other for profit org.

TYPE OF FACILITY (please check all that apply)

- ☐ Public access ☐ Education access ☐ Government access
☐ Local origination ☐ Leased access ☐ Other

DEMOGRAPHICS (individual members only)

This optional information will help us to better serve current and potential members.

- ☐ Black ☐ White ☐ Hispanic ☐ Asian or Pacific Islander
☐ Native American ☐ Other ☐ Female ☐ Male

Mail check or money order payable to the Alliance for Community Media, 666 11th Street, N.W., Suite 806, Washington, D.C. 20001-4542.

Emerging Technologies, Established Vision

This issue of CTR explores new technologies and new media. What better time to look at our "old" ideas about PEG access and see how some in our field have taken those notions into this new world.

The computer networks that connect small, single issue constituencies or allow millions of people to communicate across any distance hold great potential for many of the same uses as access facilities. From local electronic bulletin boards to the international Internet, these combinations of computers and telephone lines offer limitless possibilities and are today being used as online forums for the discussion of endless topics by millions of people. They can foster community-based communication and allow like-minded people to converse around the world.

The people who operate and use these networks see many of the same possibilities in those technologies that we have celebrated in access, and they face many of the same issues that we do, too. Some people in both the cable access and the computer worlds have recognized these overlapping visions and complementary strengths of these technologies and tried, as one friend describes it, to "get the hackers and the videofreex together."

A handful of access centers have begun to explore the possibilities over the last year. In Davis, California, Kari Peterson of Davis Community Television has been working with the local organizers of the Davis Community Network (DCN), a visionary computer network to facilitate local communications, promote telecommuting, and provide access to educational resources. The traditional roles of a public access center – reaching out into a community with a sophisticated communications technology, training non-professional users and encouraging community communications – made DCTV a natural ally with that community's high tech planners.

DCTV and activists of the Computer Professionals for Social Responsibility who have been promoting "local civic networks" along PEG principles worked on a joint proposal for a project to link computers and video to address community needs. While the DCN has not yet been built, this new partnership between computer networkers and community TV leaders seems a bellwether of things to come.

In Columbus, Ohio, Carl Kucharski of ACTV-Channel 21 is looking at

models of putting publicly available computer terminals in the access center and establishing hub sites at other public community facilities in town. Carl envisions providing public access to local and national databases, municipal information and a link to national educational resources.

At Minneapolis, Minnesota's MTN, Tony Riddle is planning to install computer terminals in their new facility for public access to the Internet, a global network of networks attached to university computing centers and computing sites in 40 countries.

These arrangements put a broader array of increasingly powerful communications and information gathering tools in the hands of community members. Just as importantly, they position these access facilities as the sites where the public, the community's non-profits, and others who have traditionally not had access to these tools, learn to use these resources.

In Burlington, Vermont, Lauren-Glenn Davitian of CCTV is forging new ground in a different, but equally important direction. As Vermont is developing a 10-year plan to guide the modernization of the state's telecommunications network, she and a handful of other dedicated activists have been working to educate people in Vermont about the issues and the stakes, and they have sought to include arrangements for PEG facilities and capacity in these new integrated networks of the next century. (Story on page 14)

Here in Washington, there has been a lot of interest in the new administration's plans for the telecommunications infrastructure it has promised to upgrade. The Alliance will be watching closely and bringing the experience of using these technologies for community ends to the table. At the same time, however, the experiments in working locally to extend the mission and potential of public access to communications technologies beyond cable TV is a promising experiment in policy development from the grassroots up.

These emerging technologies offer new possibilities for those dedicated to access and community dialogue. I hope that we can encourage each other to see them as opportunities to grow our vision.

—Andrew Blau, Chairperson, Alliance for Community Media

A TECHNOLOGY POLICY FOR AMERICA: *Clinton Promises Some Broad Initiatives (September 1992)*

The Clinton-Gore technology policy consists of six broad initiatives that together will restore America's technological leadership: Building a 21st Century Technology Infrastructure. Infrastructure has traditionally been the responsibility of federal and state governments. Investing in infrastructure means more than repairing bridges, harbors and highways. Today, the United States faces a new series of communications, transportation and environmental needs for the 21st century. The creation of a 21st century infrastructure program would serve as a critical technology driver for the nation. It would stimulate major new national R&D efforts; create large, predictable markets that would prompt significant private sector investments; and create millions of new jobs."

"As part of the effort to assess US needs and develop appropriate programs, the federal government must monitor, or benchmark, what foreign governments are doing. For example, the Japanese government has committed to invest over \$120 billion by 1995 to develop a digital broadband communication infrastructure called the Information Network System, and plans to invest another \$150 billion to establish model programs for business and residential users."

"A comprehensive infrastructure program must also include effective standards and regulations. By establishing reasonable standards and a constructive regulatory environment, the government can send clear signals to industry about important, emerging markets and spur private sector investment."

"A 21st century infrastructure program should consist of the following five elements: Funding the establishment of key networks and demonstration projects; Benchmarking US programs against those of other major industrial nations; Establishing standards and a regulatory climate that fosters private sector investment; Involving the federal labs, companies, and universities in conducting R&D on key technical issues; and Providing training for users of networks and databases..."

Commerce Secretary Ron Brown said accelerating the development of a national information infrastructure is one of the Clinton administration's top priorities. Brown also endorsed moves to allow telephone companies to own cable systems.

"One of my highest priorities will be to ensure the development of a modern and flexible communications and information infrastructure that will maintain our nation's pre-eminence in telecommunications technologies."

—Multi-Channel News,
January 11, 1993.

Excerpted from *Boardwatch*, January, 1993.

Public Policy

By Alan Bushong, Public Policy Chair

Who Benefits from Technological Advances?

Many of us in community television view technological advance much in the same way a small child views the winter holiday season: we can't wait to have fun with the new toys. We satisfy our humanitarian conscience by assuring ourselves and others that smaller, less expensive, and easier to operate machines by their presence create more equal opportunity, elevate local voices and empower people to speak for themselves and make their own decisions. Yet how realistic is this thought?

A "Working" Walk. Let's equip a local resident with a pocket-size personal communications device and a wallet-sized portable computer with voice recognition/response capabilities. To protect the privileged, our protagonist will be named Gizmo.

At five minutes after noon, Gizmo steps to the street on the way to lunch. Two steps out the door, Gizmo receives a call requesting urgent purchase of a central control for a multi-zoned HVAC unit for a 50,000 square foot facility. By mid-block, Gizmo has requested research and selection of the three best equipment options, consumer ratings and repair reports, the top five vendors for each option, a bidding form, and a memo to the Gizmo's 30 business compatriots.

By the middle of the third block, the computer responds verbally with the options. Gizmo selects the options, eliminates one vendor with a "history", edits the memo and selects colors

for the graphics. After this five minute working walk, Gizmo prepares for a delicious lunch, knowing that written bids will be waiting at the office after dessert.

The Information Privileged. Technology promises to eliminate the many of the complexities of computer use, and to make telephone communications available any place, any time. At first glance, eliminating the computer keyboard and knowledge of software appears to level the playing field for those not technically educated or inclined.

A second look is not so pleasant. The educated, privileged entrepreneur can now conduct powerful transactions far more complex than the simple working walk without any assistance. An information feudal system could loom around the corner. The gap between the elite information privileged and massive information ghetto could be magnified far beyond the current gap between literate and illiterate, and the relative numbers of privileged could be far fewer than the lords and ladies of feudal times.

Our species constantly proves that technology is changing far more rapidly than our ability to make good use of it. A coherent national policy can provide some protections, and move toward universal opportunity. A communications policy must address all existing technologies, regardless of method, and must anticipate future developments.

Five Good Reasons for a Public Interest-Driven National Communications Policy

1. Communication is a fundamental human right. If the Declaration of Independence were written today, in addition to life, liberty and the pursuit of happiness, the "inalienable rights"

would include the ability to send and receive information. Our nation's founders would have no difficulty in seeing the relationship between power, civil liberties and the availability of information.

2. Communications use public airwaves and rights-of-way, which we own. That's right. Every day, commercial television and other corporate interests dominate the use of our property to increase their wealth. Personal communications, with fiber optic hard wiring for fixed point and microwave transmission for floating point transmission, will use both. We, the owners, are being shut out and cheated from use of our property. Sound fair?

3. We can't afford any other policy. People solve problems. Right now, too many people have been cut out of planning and decision-making, and as a result, have no stake in our society. The result has been enormous fortunes for a few, but also decaying cities, homelessness, unemployment, deteriorating environment, disdain with government and voter apathy. We need everyone's help to tackle these problems.

4. Corporations no longer have our trust. Corporate solutions frequently ignore problems for profits, or use solutions which create a new set of problems which can be solved for a price. Look at nuclear power and nuclear waste; look at the savings and loan scandals. Unfortunately, a great deal of corporate planning has degenerated into 90 day cycles, with next fiscal quarter report driving the process. We can afford such shortsightedness no longer.

5. Government is here to work for us. A federal communications policy can be con-

Continued next page

Coalition Files Comments and Reply Comments with FCC to Protect Community Media

Note: This report was graciously provided by David A. Bono, the attorney with Shea & Gardner who prepared both sets of comments. As reported in an earlier CTR, the FCC rulemaking process described below was an unfortunate result of the Cable Act of 1992.

The Alliance for Community Media (along with the Alliance for Communications Democracy, the ACLU, and People for the American Way) filed comments with the FCC in response to proposed regulations that, if implemented, would lead to content-based censorship of cable access channels. The Alliance's comments, prepared by the Washington D.C. law firm Shea & Gardner, argue that the proposed regulations violate the first amendment rights of both access channel users and cable viewers, and that the FCC should promulgate more narrowly-drawn regulations that will minimize constitutional difficulties.

The FCC has proposed regulations that would coerce cable operators into censoring access channels, which provide an electronic public forum for society's less powerful interests. The proposed regulations would permit cable operators to prohibit outright certain indecent, sexually explicit, or politically controversial programming on access channels. In order to compel cable operators to exercise these new powers, operators for the first time could be held liable for carrying access programming that involves obscene material.

The ostensible, and only constitutionally permissible purpose of the regulations is to prevent children from viewing material that their

parents consider inappropriate. The Alliance points out in its comments that an outright ban goes much further than necessary in this regard, by preventing adults as well as children from viewing the allegedly inappropriate programming. Instead, the Alliance proposes the use of lockboxes – devices provided by cable operators that permit individual viewers to block access to any channels or programs they wish. Lockboxes allow parents to restrict their own children's viewing choices without permitting the government or cable operators to restrict what access users produce or what cable subscribers may choose to view. In this way, lockboxes provide the least-restrictive – and therefore the only constitutionally acceptable – means of achieving the regulations' goal.

The FCC's proposed regulations suffer from a number of other constitutional infirmities. For example, the proposed regulations burden only society's less powerful interests who use access channels to express their viewpoints, while leaving cable operators free to provide indecent, sexually explicit, or politically controversial programming on their own channels. The regulations are also hopelessly vague and overbroad in describing what material a cable operator may forbid. And, the cable operators' censorship powers enable them to engage in prior restraints of access users' speech. In its comments, the Alliance points out these deficiencies to the FCC, also noting that lockboxes present none of these problems.

International Update:

By Karen Helmerson, International Committee Chair

Latin American NGOs and Community Media

In late October, the Pan American Development Foundation (PADF), based in Washington, DC, held its fifth bi-annual seminar, CONTACT '92, on funding and development techniques for Latin American non-governmental organizations (NGOs).

CONTACT '92 brought together more than three hundred NGOs from all parts of Latin America and the Caribbean. "The forum was designed to hear from donor organizations regarding their programs and criteria for project support".

The majority of attendants were administrators and executive directors. The scope of these organizations varied greatly in regard to operating budget, staff, experience and resources. Project proposals were primarily concerned with developing community resources, focusing on issues of water quality, drug abuse prevention, human rights and primary health care.

Sharing Thursday morning's agenda however, was a panel presentation on "Democracy and Human Rights in Latin America", which highlighted the role of community-based media. The concept of community media, as a process for grass-roots organizing, was extremely well received. The idea of using video as a tool for the "advancement of development concerns" in conjunction with symposia and training projects has, without question, tremendous potential in Latin America.

There is substantial community video activity throughout Latin America already. The NGOs attending CONTACT '92 are themselves using video, but only as a tool for further funding. It was apparent that these NGOs are either not aware of their local community media activists and independent producers, or there are issues which separate them politically and economically. Whatever the case may be, it is clear that a number of NGOs are now very interested in exploring the use of video as a tool for community dialogue and local development concerns. Because many of these Latin American NGOs are in key positions with foreign funding sources, as well as their own regional governments, this signals an essential step forward for community media in the southern hemisphere.

Key issues at the seminar centered on the concept of "democratic initiatives". Major funding by various agencies and foundations within North America are focusing now on support for international projects which engage these initiatives. However, during one of the workshops, there was much discussion and some disagreement on the definition of democracy. Concern for the use of this term in conjunction with community development was clearly voiced by a representative of Jamaica. The definition of

community appears problematic as well. In particular, one organizing effort within a specific region of the Dominican Republic met with confusion and difficulty when trying to define "community". The terms "democracy" and "community" mean different things, culturally and politically, to different people. The phrase "popular participation", however, appears to serve as a substitute for the use of the word democracy. Issues surrounding the definition of community centered on those of cultural identity.

There is no doubt that community media concepts and methodologies are appropriate and timely in Latin America at both public and governmental levels. CONTACT '92 opened new opportunities for the Alliance for Community Media and its international counterparts; opportunities to work with local organizations throughout Central and South America, and the Caribbean, that are dedicated to community development.

For more information about CONTACT '92 or the PADF, contact Kevin Callahan in Washington, D.C. at 202-458-3969.

Karen Helmerson is Director of Finance at Film/Video Arts, 817 Broadway, New York, NY 10003. Telephone (212) 673-9361.

Public Policy

Continued from previous page

structed to serve the needs of the entire nation; that is the role of government. Political systems and governments were formed because, in their absence, a privileged few fought their way to the top and then abused power. Look at the United States 200 years ago: only white men with property could vote; Blacks were in slavery; children worked long hours in dangerous conditions.

Our charge. We are in the position to inform and educate our communities about emerging telecommunications technologies and federal policies. This task is as important as our efforts to gain access to cable television channels, which is a transitory technology. Otherwise, our centers will go the way of manual typewriter, and soon of the telephone answering machine and computer keyboard. More importantly, we forfeit power to an elite few. And history has shown us what happens to those who hold absolute power.

Alan Bushong is Executive Director of Capital Community Television, 585 Liberty St., Salem, OR 97308-2342. Telephone (503) 588-2288.

Corralling the Issues

NATOA Holds 12th Annual Roundup

The future of local telecommunications regulation and policy formulation and future technologies were major discussion topics at the 12th annual National Association of Telecommunications Officers and Advisors (NATOA) Conference



The Alliance was well-represented at NATOA

held in September in Irving, Texas. The strong technology track kicked off with a pre-conference tour of Dallas's Infomart, home for leading edge technology companies. Telephone companies were well represented on panels. Panel topics ranged from PCNs, PCSs, Data and Existing Franchises to Washington Update: Congressional, FCC and Court Activities to Government's Role in a Competitive Telecommunications World to HDTV and Video Compression to Video Dial tone. Access was also covered in sessions on Access Models and Telecommunication Democracy & PEG Access: Renewals, Benefits and Responsibilities.

The sessions brought together local regulators; Bob Pepper, the Chief Officer of Plans and Policy for the FCC; Gene Kimmelman, Legislative Director of the Consumer Federation of America; many telephone company representatives from policy and research areas; cable attorneys; consultants; and representatives of the Alliance. Larry Irving, Staff Council to the US House of Representatives

Telecommunications Committee made a special appearance. A number of Alliance members were in attendance and represented on panels. Walter Siembab of the Communications Support Group and Daniel Wright articulated many of the questions and

concerns for local cable regulators in their White Paper on "The Role of Local Government in a Competitive Telecommunications Marketplace". "...a new policy direction is required. Staying the course of municipal responsibility for cable television that originated in the 1960s is a short run approach.

"The competitive telecommunications markets of the 1990s require the formulation of a new, long term strategy. NATOA has the opportunity over the next few years to actively craft a permanent long run role for local governments in telecommunications that will force the other players to react to its proposals." The access community and Alliance members need to be involved in actively articulating our plan and message to NATOA and the other players. The conference concluded with the seventh annual Government Programming Awards ceremony.

NATOA is an affiliate of the National League of Cities, 1301 Pennsylvania Ave NW, Washington, DC 20004 (202) 626-3160. The next conference is September 8-12, 1993 in Orlando, FL.

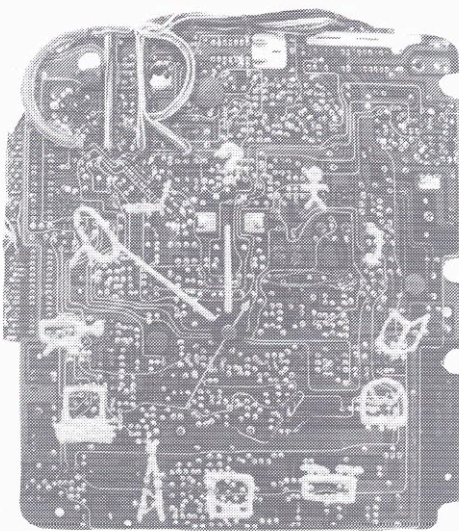
Countdown to the 21st Century

As 1993 gets underway we have a collective, widespread, future-focus we haven't experienced since the seventies. As the countdown to the 21st century continues, people are acknowledging, extolling, and questioning the significant changes in technologies and their impacts on the fabric of society as we leave the Industrial Age behind and continue our blast off into the Age of Information. Infrastructure no longer means just roads and bridges; now we are looking to construct vast highways of electrical energy. We can't run and we can't hide from the inevitable. Open any magazine or newspaper from TV Guide, to the New York Times, to the Village Voice, and on TV, from Wall Street Week to Phil Donahue – the dialogue is varied and extensive. It covers social impact, business news, policy formulation, the next generation of tools and toys, construction of the new highways, and more.

Analog storage and delivery of information will soon be a vague memory we teach our children about in their history classes. Our new President has pledged to change and rebuild America. A significant part of that pledge is the construction of a 21st century infrastructure as outlined in the Clinton-Gore technology policy.

What could and should the role of access centers be? How can we work to help humanize and democratize these changes? Or as Bob Devine states in his article "Access in the 21st Century: the Future of a Public," we must stay abreast of and involved in the changes. Individually and collectively we need to vision what our future will be and actively participate. The Alliance clearly understood the coming challenges this summer when it changed its name from the National Federation of Local Cable Programmers to the Alliance for Community Media. No cable, no television in the new name. Some access centers are already involved in creating new forms of community media such as community computer centers or in revitalizing older communications media such as radio and low power TV. All of the access center directors I spoke with understand the need to see beyond cable television and vision our future as community media centers facilitating democratic communications world-wide.

Telephone company entry into delivery of all types of electronic signals is a reality. At what levels will public policy be formulated – local, state, federal, international? How will new, open democratic access to information and communications networks be provided and funded? What types of coalitions should be forged to ensure not only open access to public information, but privacy for our individual communications? Who else is concerned and questions what is next in electronic democracy? We looked for friends in people and organi-



zations who are already at work questioning, lobbying and caring about the future. We also looked for natural allies and there are many, many groups and individuals all over the world. Too many, in fact, to list in this edition of CTR. Take note of our friends and allies, get to know them, work together. Get the Alliance Yellow Pages. Many friends are listed there.

What's next? GET ON A BULLETIN BOARD SERVICE! There is no excuse not to be. Find cost-effective ways to get into the Internet. By this time next year every one of us should

have an e-mail address and the Alliance should have its own bulletin board service again or at least be a conference in a BBS. If we are to be effective in the coming struggle we must accept, use, and master the new electronic media. Go to your library, newsstand, BBS conference, etc. Just since we started working on this issue the amount of information and ideas and changes have been immense. Share information; we can't acquire it all alone. As Tom McCain, Professor of Communications at Ohio State, says "we can now transmit the equivalent of the entire Encyclopedia Britannica 6 times in 1 minute – but the rate at which people read it hasn't changed."

Speaking of sharing, the number of people who contributed to this issue is also immense. There are so many caring, sharing idealists, pragmatists, alarmists, and dynamic individualists out there who are with and for us. I can't help but feel enthusiastic about the 21st Century. Everyone who contributed to this issue was fantastic to work with. There were many more contributors who didn't make it, not because they weren't worth listing too, but in this already expanded issue we couldn't break the constraints of space any further than we have. We will try to include their contributions in some future issues of CTR. However, several people really made this issue possible: Carl Kucharski, whose ever-organized files and mind provided lots of great information; Dirk Koning, Chair of the CTR editorial board and visionary for the access center of the future; and last, but most importantly, Tim Goodwin, Sue Fitzgerald and John Haafke at City Media. Without them CTR wouldn't be possible.

—Martha Schmidt, Guest Editor-In-Chief

Martha Schmidt is formerly the Executive Director of the San Francisco Community Television Corporation and for ten years was the Director of Ann Arbor Community Access Television. She currently writes, is working on a video project on the future and lives in San Francisco, CA and Ann Arbor, MI. Best bets to reach her are at 511 E. Ann St., Ann Arbor, MI 48104. Telephone (313) 663-7123.

"The evolution of the personal computer has followed a path similar to that of the printed book, but in 40 years rather than 600. Like the handmade books of the Middle Ages, the massive computers built in the two decades before 1960 were scarce, expensive and available to only a few. Just as the invention of printing led to the community use of books, the introduction of computer time-sharing in the 1960's partitioned the capacity of expensive computers in order to lower their access cost and allow community use. And just as the Industrial Revolution made possible the personal book by providing inexpensive paper and mechanized printing and binding, the microelectronic revolution of the 1970's will bring about the personal computer of the 1980s."

—Alan Kay,

Microelectronics and the Personal Computer, 1977.

"Democracy has often been called the art of the possible. If we don't know how our fellow citizens think and feel about issues, then we don't know what is possible – we float powerless in a sea of ambiguity and are unable to mobilize ourselves into constructive action. When we don't know how others think and feel about various options, then the political process can be easily manipulated – and this is the condition in which we now find ourselves. The most powerful and direct way to revitalize our democracy is by improving our ability to know our own minds as a community of citizens."

—Duane Elgin, Whole Earth Review, Summer, 1991.

The Future of a Public

By Robert H. Devine

Projecting a future can be a tricky business. Certainly there are technological trends worth considering: the rapid digitalization of video and the marriage of computer and production systems developments in ISDN [Integrated Services Digital Network], packet switching and fiber optics; HDTV and "scalability." Industry trends involving the coming linkages of telcos and cable and the movement to squeeze the public out of telecommunications present us with a bleak analysis of the future, while the resurgence of community broadcasting in Europe and elsewhere seems to balance these trends and portend a future of grass-roots activism and socially responsible media. In thinking about what I might say about the future of access, however, I decided against (a) presenting a high-tech scenario to dazzle our imagination, (b) weaving a sermon of stern gloom and moral resolve for our passionately marginal enterprise, or (c) leading a Pollyanna pep rally to cheer us on our way. Rather, I would like to consider the very nature of projecting a future and tease out some of the implications that this project might have for what I consider to be the central mission of public access.

Visioning of the future is generally done by the middle and upper-middle classes. The wealthy, if I might generalize, are content with things as they are; their positions are well served by maintaining the status quo. The poor lack several critical prerequisites for visioning a future. In addition to lacking these prerequisites, the poor also have considerable experience with the sort of de-skilling and work replacement that is engendered by many "future-oriented" technologies and visions. The future is fraught with difficulties and is generally not a source of concrete optimism.

The middle classes are able to imagine, vision, discuss and even participate in the forging of a future. They also have the disposable income necessary to acquire the conveniences and amenities of twentieth century life. For example the profiles of the future with which we are most familiar often include extended and enhanced use of and interaction among the technologies of the VCR, the home computer and the cable (or other means of broadband delivery). Clearly the technological base that we assume to be standard for most projections of an informationally rich future is contingent on discretionary income, and to some degree will be accessible only to certain segments of the broad population.

Such future projections are also premised upon the availability of discretionary time. The middle-classes possess the discretionary time and energy for education, for participation in public life, for travel, leisure and reflection. The more sophisticated technologies of an information future require a learning base; we all know the difficulties of providing access training to those who cannot afford the time away from a job or children, and the learning curve involved. While there has been a perceived decline in support for the public education of future generations, those with the necessary time and money are still able to avail themselves of educational opportunities which will provide them the information and agency necessary to become active participants in a democracy. Discretionary time also provides the opportunity for citizens to participate in the formation of public opinion – through city council meetings, public dialogues and debates, advocacy organizations or even public access – a luxury which many must forego.

The implications of this line of thinking about the future have everything to do with the future of access. Diffusion of the benefits of innovation, new technology and new patterns of participation will be tied to socioeconomic status. The benefits of the future will be *privatized*, not universal. They will be available to those who can afford them. We already can see the emergence of a two-class system in the pay-as-you-go programs of museums and libraries, in the qualitative differences between public and private education, and in tiering of basic and pay cable. The middle class seems to be disappearing and with it both the

ability to vision a future and a public sphere in which public opinion about the future can be forged.

My problem with futures and future technologies is that they seem to foster private culture, expand private space and result in the diminution of a public sphere. Given the array of "future" technologies,

- You will not have to go out to meet people or to go to a movie; you can be entertained technologically in your home.
- You won't have to go in to your office; computer and modem have colonized your private space for work.
- You won't have to experience spontaneous random searches for information at a library; you can call up only what you already know from a data base, and avoid ever encountering library "stacks".
- You won't have to go to a concert or a city hall meeting; you can experience such activities via cable television.
- You won't have to go to the corner to buy a newspaper; you can access specific kinds of information, and utilize a fax machine to hard-copy only that information that's relevant.
- You will not have to take phone messages; e-mail and phone machines will spare you those interactions.
- You don't have to interact to vote; electronic polling will make it unnecessary, and sophisticated computer projections will provide knowledge of outcomes before your vote is even cast.
- You will have a tremendous freedom of choice, but for the most part choices will be constrained to private consumption, taking place almost entirely in a private sphere.

The technologies that we herald as the underpinning of an information society seem to leave us with a sense of private rather than public expression. We cherish freedom of speech but, as we have seen with the current debates over "hate-speech", we are unsure about the concomitant responsibilities or consequences of speech in a public arena. Our notion of freedom of expression is grounded in the prerogatives of self-interested expression ("I should be allowed to express whatever I want."), rather than an emphasis on rational discourse, discussion and dialogue for the *common good* of the community. In access we consistently see vanity video, self-aggrandizement, autonomous expression, pale imitations of celebrity and spectacle rather than public discourse with functional value.

By 'public sphere' we mean first of all a domain of our social life in which such a thing as public opinion can be formed.

The ideas inhering in this public sphere are worth elaborating upon and reiterating. The public sphere is

- Accessible - open in principle to participation by all;
- Public - in contrast to the exercise of private established authority;
- Critical - in discussion of state authority and of the state of society;
- Rational - in testing and measuring ideas through rational debate;
- Seeking the common good – rather than simple personal expression or self interest;
- Mediating between state and society - debating the general rules governing relations;
- Directed at achieving consensus - attempting through public discussion to arrive at common understanding and purpose.

This is the grounding of our First Amendment and many of our notions of a free press, a marketplace of ideas and participatory democracy. The ideal is an informed and enlightened polity, airing and discussing common concerns in a public arena, reaching agreements about the shape and directions of our society. These are also the founding characteristics of public access.

What we are currently experiencing is a re-feudalization of the public sphere, and the losses are substantial. The marketplace of ideas is for those with the resources to enter it. The video dial tone system approved recently by the FCC provides an excellent example. Alan Bushong's anal-

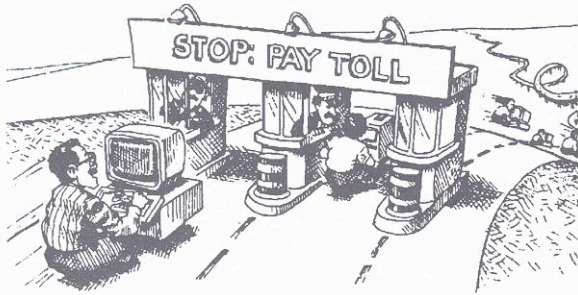


ILLUSTRATION BY MATT WUERKER

ogy to placing toll booths in the path of public participation is an apt comparison. The First Amendment protects autonomous expression, but the utilitarian values of public discussion and debate tend to get lost. Public access gets tagged with the bizarre, the self-involved, and vanity video, while the First Amendment is marginalized in the process. Corporate entities (most notably Phillip Morris and the cable industry) stridently assert rights as self-interested speakers, and public opinion becomes something that is *distributed* rather than forged by an informed and active public. Does the public know the form and implications of the telecommunications complex that is taking shape behind closed doors? Is there public participation and debate? Are telecommunications "consumers" (a role much more confining than that of "participant" implying, of course, that culture is a commodity rather than a practice) merely another "special interest" group with marginal access to the marketplace of ideas? In the erosion of public discourse, the "public" ultimately loses its convictions about the value of civic participation, its belief in its ability to effect change or to make a difference, and its sense of public life.

And so public access. We can not for a single minute take the elegance of the model for granted. *Public access brings private citizens into public life.* It creates associations, forges coalitions, and transforms private concern into public activism. Within the access structure is the mandate to make public participation accessible to all, without regard to income, education, race, gender or political persuasion. It stimulates and supports public expression and dialogue, and provides a forum for discussion of the issues of concern in two thousand communities across the country. In the process, public access shields participants from economic or state intimidation or intervention, allowing *all* ideas to be discussed and tested through rational public debate. Most often, access organizations perform their role in public, with open meetings and the scrutiny of clientele and press alike. And in the multi-cultural nineties, public access provides an incredible vehicle for the preservation, practice, enhancement and transmission of unique cultural traditions. It encourages and facilitates coming to voice and enables diverse subcultural groups to define and articulate their distinct identities. It provides all of its clientele with the agency that comes of entering into the public discourse of the community. In short, *public access is the last best hope for a public sphere and for an active and enlightened polity.* Given our current corporate telecommunications climate, *public access is also the future of the "public" in public communications*, and the more often we remind ourselves of that fact, the clearer our mission becomes.

Excerpts from a presentation given at the Alliance for Community Media Central States Fall Regional Conference in Columbus, Ohio.

Robert Devine is Professor of Media Arts, Antioch College, 317 W. North College, Yellow Springs, OH 45387. (513) 767-6356.

Organizational Allies

There are many great organizations who are natural allies. Some, as seen elsewhere in this issue, are involved in advocacy issues, some are providers of access and media services, some are good examples of NPO management. Some are in the business of helping other NPOs. Get to know your region's resource centers or find other access centers who may be able to help you access support centers near them.

To join the Digital Generation and move into cyberspace, information may be available from colleges and universities, computer-user groups, corporate training programs, online services, and computer support groups. Another source of free or low cost advice is the *Technology Resource Consortium* of 16 groups located around the country. These groups specialize in computer training, support and access for foundations and NPOs of all sizes. Some are in association with other NPO training programs. For example: *The Support Center of San Francisco* (415) 552-7584 provides computer and other NPO management training services. With focus on various levels of computer support *CompuMentor* (CM), is a San Francisco based nonprofit corporation, with affiliated projects and participating volunteers (mentors) throughout the United States. Their goal is to help nonprofits integrate appropriate technology into their organizational lives. A priority area for CM is telecommunications network building. If you would like to start a mentoring project, you can get the "Starter Packet" for \$10. For national NPO networks and individual NPO you can contact CM for more information about their services at (415) 512-7784. They can also send you a complete list of the other members of the Consortium and affiliates.

Some communities already are lucky enough to have community computing centers. One fantastic example is the *Somerville Community Computing Center*. Their mission recognizes that "in our increasingly technological society people who are socially and economically disadvantaged will become even further disadvantaged if they lack access to computers and computer-based technologies." According to Peter Miller, the Center Director, the SCCC is a branch of the Adult Education Program; provides open, free public access including training (they estimate that 60% of their users are unemployed); and they provide training and support to other NPOs in setting up their own community computing centers (they want to empower as many groups as possible to provide community access). SCCC has a well thought out set of guidelines. SCCC is an excellent example of community collaborations with Abigail Norman of Somerville Community TV sitting on the Board of the SCCC.

Peter's recommendation for any NPO wanting to get onto a network and BBS is to: look at the services provided by various systems that make it worthwhile to you, what conferences are there and what cost; survey (or list) your needs and see which network provides for your needs; and is it on Internet (a must). Also, other like organizations may already have evaluated the networks and could share their surveys with you. Access centers might want to evaluate Learning Link (PBS is on it), IGC (see article on Global Communications Networks), HandsNet, Genie, or CompuServe. Peter is happy to help. Call (617) 625-1335 x6948.

Something to keep an eye on is The National Research and Education Network (NREN) proposed by Vice-President Gore. It would be a consistent set of policies, regulations and definitions.

Many of the articles in this issue of CTR were written by people active in advocacy and professional organizations. For example: Computer Professionals for Social Responsibility (CPSR), Evelyn Pine; the Center for Civic Networking, Richard Civile; etc. look at the author's name and address and you can contact their organization for more information. Many of them have newsletters and would love new members. The more we can expand our exchange of ideas the better.

Electronic Democracy

The Great Equalizer

By Howard Reingold

In the age of mass media, citizens and grassroots groups need an equalizer. The combination of personal computers and the telephone network might prove as important to citizens in the information age as the printing press has been for several centuries. The use of electronic mail services, computer bulletin-board systems, and computer conferencing systems as channels to make decisions and disseminate information can help grassroots political organizations, nonprofit groups, and other public interest groups to gather critical information, organize political action, sway public opinion and guide policy making. Telecommunications, properly used, can equalize the balance of power between citizens and power brokers. The key to understanding this new opportunity is understanding the power of computers as communication devices. Many people have yet to realize the power of personal computers can be multiplied by equipping them with communication hardware and software that allow them to "talk" over the telephone lines.

Most of the processes involved in formulating and advocating public policy are communicative in nature – meeting others, developing and refining ideas, persuading people to adopt your views, enlisting their support, negotiating compromises with opponents. These functions can all be enhanced significantly through the use of computer-mediated communications. And these communicative techniques are the core of what public policy influence is all about.

You need four key pieces of hardware to get started: a computer, a communications card in your computer that enables you to use it as a communications device, a modem that converts your computer's output into a form that can be transmitted over telephone lines (and reconverts), and a telephone. Telecommunications software and telecommunication services are the other components you will need. The most basic form of telecommunications software enables you to type commands on the keyboard of your personal computer (pc) and send those commands through the telecommunication network to a remote service such as a bulletin board system (BBS), electronic mail service (e-mail), or conferencing system. Very inexpensive (or even free) forms of telecommunication software are available, and for less than \$100, very sophisticated commercial telecommunication software is available.

When you have your hardware and software working, you need to know the telephone numbers of services that can connect you with other people. The cheapest way is to start by using local BBSs, most of which are free. You can look in the classified advertising section of any controlled-circulation computer newspaper and find lists of dozens. Almost every BBS has an on-line list of other BBSs. You can perfect your on-line skills, meet people, gain information, at very little cost. If you want to send electronic mail to a large number of people in a larger geographical area, you will need a subscription to MCI Mail, CompuServe, PeaceNet, EcoNet, the WELL, or

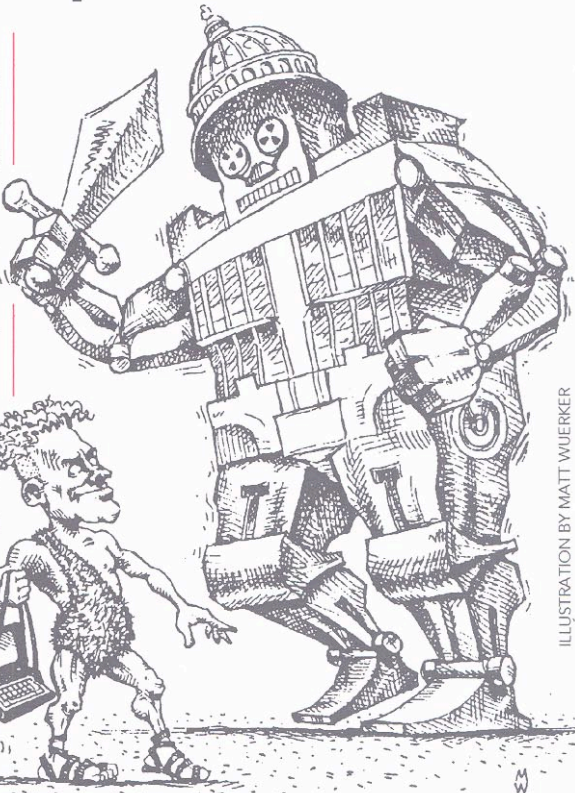


ILLUSTRATION BY MATT WUERKER

other computer conferencing or e-mail systems that interconnect with other networks. Because my electronic home, the WELL, has connections with Internet systems, as well as MCI and CompuServe, I can reach and be reached by millions of people worldwide. Costs for each of these systems vary.

Once you have your technology working and your service subscription, you need to figure out how to use it effectively. Fortunately, most systems offer on-line support and telephone numbers for access to people who can talk you through the procedures. Until you spend some time exploring these new communication media, terms can be confusing. The following explains how e-mail, BBSs, and conferencing systems work.

ELECTRONIC MAIL – When you sign up for an electronic mail service, what you get when you pay your entrance fee and/or fill out your registration is a user identification (often called a "username" or "userid"), a password, an account, and an electronic mailbox. The password is a combination of letters, numbers, and punctuation marks known only to you and to the service provider. Your username is known to every other person who has access to the service, and is the "address" that others use to contact you. An electronic mailbox is a portion of the service's computer memory that is dedicated to your use. If somebody sends you e-mail, their message will be stored there until you read it. When you read your e-mail, you can print it on your desktop printer, store it in the service's long-term storage (which is different from your mailbox), store it as a computer file on your computer, and/or reply. Like the telephone, and unlike postal delivery, e-mail is instant; at most it takes a few minutes for the service to deliver your mail

"Information literacy in the age of electronic media requires a new set of skills and sensibilities. It is not enough to be able to read text, watch video, or listen to stories. People must somehow develop the means to integrate information from many sources into coherent understandings of the world. The process of understanding is also complicated by conventions embedded in "informational" media that attempt to deny the very existence of point-of-view. . . point-of-view is always a part of information, no matter how subtly expressed or elaborately disavowed. Information literacy requires that we be able to identify point-of-view and to use it productively in the process of understanding. For many years, my work has focused on applying dramatic theory and technique to computer media. The use of drama offers some interesting solutions to design problems in computer-based information environments. Looking forward, I can see several compelling issues that must inevitably be explored. One is to discover how agents (computer-based characters that assist people in performing tasks) can be useful in information environments designed for contexts other than learning. . . By giving people the means to create new information and to represent their own points of view to others, a radical shift may be achieved in people's experience of control. This capability may reverse, not only the McLuhanesque numbness that is our response to packaged information, but also the trend toward political apathy and the atrophy of personal power that looms in the 21st century."

– Brenda Laurel, *Whole Earth Review*, Summer, 1991.

Laurel is Senior Researcher, Interval Research Corporation, Palo Alto, CA.

to the e-mailbox of the recipient. Unlike the telephone, the recipient doesn't have to be online at the moment you want to communicate. This "asynchronous communication" aspect of e-mail eliminates telephone tag. Response is easy and immediate. You simply type your reply on your computer keyboard.

The cost of e-mail is an advantage that increases in importance as the cost of postal service mail and the more expensive delivery services. Another cost and time-saving feature is the capability of sending your message to multiple addresses or even to a mass-mailing list.

ELECTRONIC BULLETIN BOARD SYSTEMS – A bulletin board system (BBS) is a large or small computer, with one or more modems and telephone lines connected to it, and software that allows people with computers and modems to call and leave messages. You can send and receive e-mail on almost every BBS system. A BBS is literally an electronic bulletin board where people can post notices and participate in public discussions. If you want to sell a bicycle, argue about politics, or learn about telecommunications, you can "log on" to a BBS, read what others have written in the public communication area, and add your own comments. Many people have formed deep friendships and have participated in true community-building through a BBS. Tens of thousands of BBSs are in operation in North America alone, most of them in people's homes, most of them single-line (which means only one person can access at a time), many of them devoted to a specific area of interest.

BBSs have the communication advantages of e-mail, plus a few of their own. First, a BBS makes "many-to-many" communications possible, just the way a bulletin board in the town square does – except you can visit the town square by typing a command on your computer at home or the office, and the "town" can consist of a small city, a state, or an entire country. The topic oriented structure of a BBS system, the capability of using both public and private messages to build communities, the capability of "downloading" software, the fact that communication style, rather than appearance count, are all powerful advantages of BBSs and computer conferencing systems. BBSs, when used knowledgeably, also can be superb tools for grassroots political organizing, or for leveraging the activities of any grassroots public interest or nonprofit organization.

COMPUTER CONFERENCING – A computer conferencing system is a more capable and powerful version of a BBS, but the principles are very similar. The central computer is more powerful, and the software it uses, more sophisticated than the kind used by most BBS systems, and it is usually capable of communicating with several (or hundred) telephone lines at the same time. The central computer stores, structures, and displays public discourse and handles private e-mail among groups of people that number from a few hundred to several hundred thousand. In addition to mail and public discussion, computer conferencing systems often have facilities for receiving, storing, and displaying longer documents, which makes them a kind of instant-publications medium.

Like a BBS, a conferencing system is time and distance independent. People can log onto the system from different places at different times and participate in ongoing discussions. Conferencing systems structure discussions according to topic, making it easier for people to find others who share their interests, and to request and offer specific information. The combination of time and distance independence, many-to-many capabilities and topic orientation makes computer conferencing attractive as a medium for conducting ongoing or time-limited "electronic meetings".

Decentralized work, involving volunteers or paid staff scattered around the country, is facilitated at low cost by appropriate use of computer conferencing. Coordination of political or lobbying activities in a timely manner also can be facilitated. Computer conferencing is not a panacea, but it can be a powerful tool; the key, as with any tool, is to learn how best to use it – and when not to use it.

With the power of computer-mediated communications, it is possible to expand dialogue, to show people that individuals can be effective, and to organize groups of strangers into communities. There are few more important tasks at every level, from the neighborhood to the planet, in the days ahead.

Howard Reingold, Editor-in-Chief, Whole Earth Review, and author of Virtual Reality. His next book, The Virtual Community, will be out in the fall.

Excerpted from an article in WER #71, "Electronic Democracy"

Whole Earth Review

WER is a quarterly magazine of unorthodox cultural and technical news acting as a watershed of large ideas, in-depth stories, and unconventional wisdom. "We have no idea where the magazine is going because the future isn't predictable." Along with topical articles each issue provides information on additional resources and feedback from the readers. Three recent Whole Earth Reviews (WER) are excellent supplements to the ideas presented in this issue of CTR.

"ELECTRONIC DEMOCRACY"

Whole Earth Review, #71, Summer, 1991.

The articles in this issue "are about power - how to gain it, influence it, and exercise it in a modern democratic society. Big government, big business, big politics already know how to use telecommunications technologies to amplify their effectiveness. The cost of access to these technologies is no longer an insurmountable barrier to citizens, but the arcane knowledge of how to use these tools to provide leverage for community organizing activities remains an obstacle." The purpose of this issue of WER "is to help demystify electronic mail, computer bulletin-board systems, computer conferencing, and other tools that can help citizens gain some of the communication and persuasion power that has heretofore been limited to large institutions."

— Howard Reingold, Editor-in-Chief, WER
This issue is a MUST for access people.

"QUESTIONING TECHNOLOGY"

Whole Earth Review, #73, Winter, 1991.

In this issue WER brought together authors with "...a broad range of opinions who have been grappling with our changing attitudes toward technology." WER has assembled these different perspectives and turned them on our most fundamental assumption - that access to tools is a good and noble service to provide.

Some of the technologies that make people a lot of money are also capable of lulling people into uncritical consumer consciousness. This system is misunderstood by many, because the benefits of most technologies are immediately obvious, while their side effects might be as invisible as they are destructive. Every day clever people use powerful communication tools to convince us that we need to buy more."

— Howard Reingold, Editor-in-Chief, WER

"HIGHWAYS OF THE MIND" #70, WER, Spring, 1991.

You can get back issues by looking for information in the back of any WER or write WER, PO Box 38, Sausalito, CA, (415) 332-1716. Plentiful back issues are \$7 (#73); endangered issues (fewer than 30 in their archives) are \$50 or \$30 for a bound photocopy. They do allow small quantities of reprints for non-profit classroom and community use at no charge. Please be good enough to inform them of your use. Completely reader underwritten, you can subscribe at \$20 per year.

The illustrations in this issue of CTR are provided by the Whole Earth Review and Matt Wuerker, a freelance artist and cartoonist living in Portland, OR. Matt's illustrations have appeared in WER. He has also published a collection of political cartoons, *Standing Tall in Deep Doo Doo*.

The Creation of Community Communication Centers

In the future. . . "the channels are important, but the provision of production facilities will lose their importance. We will have desktop video at home, and we (access centers) will shift our focus to media literacy."

— Sam Behrend, Executive Director, Tucson Community Cable Corporation

"The future of access centers should be a combination of coalitions with other organizations and media arts centers. My vision is for Multi-Media Community Communications Centers with five basic components: TV; radio; visual arts; media arts; and community computing, which would include BBS, desktop publishing, and any other computer related services. Why the inclusion of art? Because **INFORMATION IS ART**. Media literacy is our primary function, because as 501 (c)(3)s, education is our primary function. For the past 20 years our focus has been on teaching people how to use equipment. Now our focus should be on teaching people how to best communicate what it is they need to communicate."

— Chuck Sherwood, Executive Director, Cape Cod Community TV

"Clearly the future of access centers relies less on device and more on content. We have to see what opportunities are out there, what will drive us, and we will have to adapt or we will be out of business. At Olelo we have made a commitment to research and development. We are working on ways to transcend the platform of delivery envisioning BBS, telepublishing, and more."

— Richard Turner, Executive Director of Olelo, Hawaii's community television corporation

by Evelyn Pine

The idea is a compelling one: An access center broadens its services beyond cable video to include a range of communications technologies that enhance local information-sharing, dialogue and debate. Like all good ideas, however, the idea of a community communications center demands thoughtful appraisal and straightforward planning to become more than a last ditch effort to stave off budget cuts, burn-out and program boredom.

The vision of a local access center providing computer networking, desktop publishing, voicemail, fax, video-cassette as well as cable programming has surfaced at a time when the access community confronts a number of challenges—regulatory changes, franchise renewals, and burgeoning technologies. Our ability to respond to these challenges is crucial to ensuring that freedom of expression, the free exchange of ideas and access to tools and information are available for everyone.

To define the strategic opportunity we face, this article will do three things: first, I'm going to sketch out the environment in which access now lives—its high points and its pitfalls. Second, I'm going to describe (quite briefly) three computer-based models of community communications. Finally, I'm going to outline some questions which I think are basic to any strategic planning you do as you consider expanding the kind of communications services you provide. But first, because in a world of cybersalespeople and virtual visionaries, I tend to focus on practicalities, I want to outline my experience in helping communities take advantage of new technologies. My work with a number of organizations gives me a fairly diverse, but very down-to-earth view of the subject.

A Diverse, but Down-To-Earth Point of View. I'm currently the Managing Director of Computer Professionals for Social Responsibility (CPSR), a national public interest alliance of computer scientists and other computer users. CPSR has one fundamental principle which guides our work. Simply put, technology is not a solution for social and political problems, but it can be a tool, if used appropriately and consciously. A writer once asked me, "The word 'Luddite' refers to people who are against technology. I need a word for people who aren't against it, but who take a serious, critical look at developing technology." I replied, "We already have two words: CPSR Member."

A lot of you may know me through my work in the mid-eighties at the Foundation for Community Service Cable Television, California's statewide clearinghouse which encouraged the effective use of local cable channels. Despite the controversy of de-regulation through which the FCSCT was born, we had a very specific and productive agenda—to create new kinds of partnerships in communities to enhance local communications.

Whenever I attend an Alliance for Community Media conference, the FCSCT's legacy becomes clear as I meet so many leaders of organizations which the Foundation helped to organize or fund. The emphasis on partnership building, which then-FCSCT Executive Director Kathleen Schuler made central to all our projects, seems very contemporary 10 years later as access centers strug-

gle to come to terms with who they are in a changing environment of regulation, funding, technology, and participation.

At the Community Memory Project, a public access computer network in Berkeley, I took much of what I'd learned from all of you in community access cable and applied it to a new technology: community computer networking. Not surprisingly, a lot of the challenges were identical: how do you get all elements of the community involved with the project? How do you engage key community institutions without alienating creative, individual users who have a strong sense of ownership over the channel? How do you develop policies and procedures that encourage free speech while enhancing, rather than destroying, participants' feelings of community? And who pays for this community service when you want the broadest participation, but everyone is pleading poverty?

Community Media Meets the New Millennium. It's still eight years till 2001, and already the access community is confronting a period of profound change. And it's not just us. The recent presidential election expressed a national desire for change. The election of Bill Clinton and the wave of support for Ross Perot illustrated the depth of public feeling that the nation has to move in new directions. Telecommunications is a special interest of the Vice President so technology policy will be at the heart of the debate. I hope access activists won't become so caught up with their own thorny challenges that they opt out of the broader national debate.

And cable access activists certainly have a number of new challenges to confront. The new cable bill—while allowing the FCC to set rules for basic rates—has raised the specter of cable company censorship of access programming. And as those of us in the business of fighting for the First Amendment know—the specter of censorship has a chilling effect on all communication. And if that isn't cold enough for you, the cable operator can now break out the cost of the public, educational and government channels on each subscriber's bill.

In addition, many of the cable systems franchised during the cable bidding wars of the eighties are going to be coming up for renewal in the next few years. The Cable Communications Act of 1984 *does not* require local governments to spend the 5% franchise on cable-related purposes including access. Never has it been more crucial to demonstrate the value of access to subscribers, the company and the city council. Nonetheless, some access centers will be de-funded in the next few years.

In light of these challenges, the National Federation of Local Cable Programmers has broadened its goals, becoming the Alliance for Community Media. By nurturing community institutions that support not just cable but other community service media, the Alliance hopes to build new partnerships to create, manage and support access to a range of technologies and communications services. It is an audaciously ambitious goal, but not at all surprising. I've always felt that access advocates rode the wave of cable but they were never wedded to that technology. Rather they saw cable as a way to allow access to high-priced media by people who might otherwise be excluded.

And a number of access centers are old enough – and well-established enough – that they can now take a look at their mission and evaluate if simply providing cable programming fulfills their mandate to encourage broad participation in community communications.

New technologies exist that can re-invigorate and enliven that mission: videocassette, fax, voice mail, community computer networking as well as old favorites like radio, publishing and, of course, TV. Members of our communities are already using some of these technologies whether through home video or computer and modem. With our experience as facilitators, trainers and organizers, we have excellent skills to help the rest of the community learn about the potential of these new tools.

Wayne and Garth Meet the Woz. Of course, before we all leap on the high tech band wagon, we need to understand more about these different technologies and how they are being used by communities. In the realm of computer networking alone there are a number of models. I'll briefly describe three models for community computer networking.

The Community Memory Project links ten public access computer terminals sited in public places like libraries, community centers or laundromats. Community members read messages about any number of topics from the city council agenda to job listings to discussions of books and politics. Anyone can respond on-line to any message they read. Managed by a small nonprofit, the central memory – a 386 computer – is housed by the City of Berkeley. Funding is from grants, software royalties and donations.

Santa Monica's **Public Electronic Network** provides public access computer kiosks as well as allowing people to dial in from their home or office. Not only is there online discussion about a range of local issues, but e-mail links are provided for citizens to access local officials. The system is managed by the city, paid for out of the city's general fund, with initial donations of computer hardware to the city.

Freenets are locally-based computer networks which allow you to dial in from your home or office (there is no access for those without computers) to tap into a range of community information and discussion. The information is structured like a town with a post office for electronic mail, a city hall for information about local government, a hospital for medical information and so forth. The initial impetus and mode came out of Case Western Reserve in Cleveland and they are eager to have the model used in other cities. The system is paid for through institutional support and community fundraising.

By allowing residents new ways to access community information and other citizens, these three models offer possibilities for extending access centers' mission beyond simply video production and cablecasting. Other technologies – fax, voice mail, videocassettes and more – may also offer something to your community which is as meaningful as what you have been doing, but takes your vision in a new direction. The big question remains: Should we integrate these additional technologies? And if we discover that we should, how do we integrate them?

Feet on the Ground: Nine Planning Questions. Clearly, as we look at our organizations in the light of changing realities – regulatory, financial, technological or organizational – we need to develop a way to plan step-by-step. As you begin that planning process, here are nine preliminary questions that will help you get a handle on these new opportunities – not based on a vendor's schpiel or a

visionary's revelation unbounded by budget or personnel. Rather these are questions that can allow you to think through how your organization relates to your community and how new technologies might extend and improve that relationship. Note that my emphasis is on community and organization, rather than the technology. You can't select an appropriate technology until you understand who you are organizationally, and in what community you live.

1. What is our mission? Are there people in our community who remain underserved – or unserved? What kind of services could meet those needs? What kinds of technologies would help meet that need?

2. Who on the board would be an appropriate leader to evaluate this kind of venture? Who among the board and staff have the appropriate enthusiasm, expertise and clout to make the planning process worthwhile?

3. What are our current strengths and weaknesses as an organization? Where in the community do we have strong existing support?

4. What are the existing communications networks in our community? Conduct a community communications audit outlining existing channels of communication: local newspapers, television, newsletters, group meetings, events, radio, libraries, unofficial networks, and other sources of community information.

5. In light of the communications networks we have evaluated, are there needs that go unfulfilled, information that isn't delivered, people and organizations who might benefit from shared communication and communications resources?

6. Who are potential participants in any new services we might offer? Are there existing participants who would use these services? How might community organizations take advantage of new services we might offer?

7. Who in the community is our potential competition? Who are our potential partners? Are any of our competitors potential partners?

8. What are the potential ways to fund such projects? Evaluate the potential of user fees, grants, community fundraising, donations, memberships, organizational underwriting.

9. How do any of these new ideas – surfaced in the previous eight questions – relate to our mission? What is our purpose? to produce cable programming? to help the community communicate? to bring together disparate parts of the community to share information, opinion, and ideas?

This article is a talk which Evelyn Pine presented at the Fall Regional Conference of the Far West Region of the National Federation of Local Cable Programmers in Davis, California.

Evelyn Pine is the Managing Director of Computer Professionals for Social Responsibility, a nonprofit public interest alliance of computer scientists and computer users. As Executive Director of the Community Memory Project, she managed a ten-terminal public access computer network which individuals and organizations used as a bulletin board, a library, an online cafe, a political caucus, a poetry reading, and much more. As Deputy Director of the Foundation for Community Service Cable Television, she co-authored with Kathleen R. Schuler, Community Channels, Free Speech and The Law: A Guide to Access Programming on Cable TV. She can be reached at CPSR, PO Box 717, Palo Alto, CA 94301. (415) 322-3778 or by e-mail at pine@csli.stanford.edu.

"My recommendation for access centers and access people is to buy cheap, work fast, and work alot. You don't need a million dollars whether its interactive or linear to put something together... There needs to be more of a sample. There needs to be more people doing it. And you're going to find ten year olds in Louisiana and senior citizens in New York and Native Americans in Alaska getting their hands on this for the first time. And when that number goes from scores to hundreds to tens of thousands of producers you're really going to see some remarkable stuff going on. The only other thing I would add to that if I were an access center is I would get on e-mail immediately."

**– Michael Naimark,
Researcher, Interval Research
Corporation – a new group
looking into the future of
technologies.**

INTERACTIVE – There are two interactive communications systems that are being used on access channels around the country. They allow a channel's bulletin board to be accessed from a push button telephone - letting the viewer select the information they would like to see. They also allow the access center to keep a data base on the information requested. Each system has distinctive functions and graphics. Don't let your channels sit there passively - get your communities involved without leaving home. These are cost-effective alternatives, and the good news is you may already have some of the hardware you need to run them. Check the advertisements in this issue of CTR for RTC, Response Television Corporation and IVBB, Interactive Video Bulletin Board. Give them a call.

The I-NET Revisited

It's time to start thinking about "I-Nets" (institutional networks) in new terms, particularly in relation to how a community access center or local government considers the possibilities involved in the I-Net of the near-future. A fairly universal, if limiting, definition of an I-Net has been: "A broadband communications network, capable of carrying voice, video, and data communications between locations in the cable service area." There are many variations on that theme.

Many communities have found that I-Nets are quite valuable in providing a means for such applications as electronic mail between public agencies, library catalog searches and circulation, staff video training and teleconferencing, alternatives to local long distance charges, and remote monitoring and control of devices such as floodgates. The access center could be an ideal I-Net community resource center, where training and facilitating roles could coalesce in the development of cooperative uses of the resource. The broadband nature of an I-Net is conducive to community sharing of the resource, and cost-effective means of addressing diverse problems and interest can be made available to nonprofit organizations and government agencies that might otherwise be unable to procure such access on their own.

- Andy Beecher, Institutional Services Manager at the Metropolitan Area Communications Commission, Beaverton, OR. He manages the Public Communications Network, a 550 mile I-Net operated in suburban Portland, OR.

Building an Infrastructure for the 21st Century

The State of Telecommunications In Vermont

By Lauren-Glenn Davitian

As one of the smallest states in the nation with a population of a half million people, Vermont is a unique laboratory for the development of telecommunications infrastructure and policy. While we do not enjoy the economies of scale of larger states, between the cows you can find the range of communications technologies that signals Vermont's graduation into the "Information Age".

From New England Telephone's fiber optic "backbone" (fiber trunk to 90 switching sites around the state) to wireless cable projects and Adelphia Cable's fiber optic loop around the state, Vermont citizens may be ushered into the next century with a menu of voice, data and full motion video services into their homes.

Note the word "may". Unless we are successful in lobbying for **affordable** access to these technological opportunities, most Vermonters will not realize the benefits of the exalted new "Age". Unless we can convince our corporate communications providers that lower prices mean more users, Vermont could remain the technological backwater we are today.

In Vermont (as in every state), the few advocates of affordable, accessible, interconnected and privacy protected telecommunications infrastructure (a mouthful) must establish alliances with legislators, regulators, agency heads, the executive branch and citizens at large to realize this vision. Since the beginning of our campaign in early 1992, we have relied upon the model of access and affordability pioneered by Vermont's PEG access advocates.

Over the past decade, Vermont's community television advocates have worked successfully with state regulators (Vermont cable franchises are regulated by the State's Public Service Board) to guarantee channels, operating and capital funding to community groups who want to start a PEG access channel anywhere in the state. Cable Rule 8.000, passed in 1991 and based on eight years of precedential cases, requires Vermont cable operators to provide a plan with budgets and implementation schedules at the time a franchise is awarded or renewed. Operating funding guidelines of 2.5% of the cable operator's gross revenue have been established as a point of departure for negotiations.

Alerted by the specter of "Video Dial Tone", i.e. the phone companies providing video services, these same PEG advocates initiated a broader based advocacy organization to move beyond cable and review all telecommunications providers with access requirements in mind. Working with Computer Professionals for Social Responsibility based in Washington D.C., we initiated the "Ad Hoc Group for Public Participation in Telecommunications Policy and Planning". This cumbersome name accurately describes our efforts. In addition to PEG advocates, this loosely organized (but now influential) group includes citizen watchdogs, legislators, small telephone providers, congressional representatives, regulators, lobbyists, public interest groups, educators, tele-communicators, computer system operators, advocates from the low-income and disabled communities, etc.

From New England Telephone's fiber optic "backbone" . . . to wireless cable projects and Adelphia Cable's fiber optic loop around the state, Vermont citizens may be ushered into the next century with a menu of voice, data and full motion video services into their homes.

In the past twelve months we have accomplished a number of initiatives including:

- pressuring the Vermont Public Service Board to take another look at New England Telephone's latest rate case;
- reviewed and testified on the Department of Public Service's Ten Year Telecommunications Plan, changing the scope from simply a "telephone plan".
- participated in the Vermont Legislative Summer Study Committee on Telecommunications, meant to augment and refine the Ten Year Plan.
- establishing a computer bulletin board service to carry the proceedings and testimony relating to the Ten Year Plan and Legislative Telecom Committee.
- recording the public hearings for the Plan and Legislative Telecom Committee and airing on public access channels throughout Vermont.
- initiating a series of forums on upcoming legislation, educational technologies, the grip of New England Telephone on state purchasing decisions, alternative service providers such as cable and government information systems (scheduled between December 1992 and May 1993).

It is important to understand that Vermont's small size lends itself to public participation in policy making. Citizens can file for intervenor status in telephone rate cases and cable franchise renewals. Legislators are immediately accessible. Even Administration members are available to hear citizen views first hand. Public testimony is taken seriously and finds its way into legislative studies, Ten Year Plans and Public Service Rulemakings.

The tricky part in all of this is to figure out how cable access requirements can be applied to wireless cable operators (who are not regulated by the state), to Adelphia Cable's fiber interconnect (ostensibly used for private communications) and to Bell operating companies, such as New England Telephone. We are beginning to explore ideas such as a "gross receipts tax" to fund access efforts and affordable rates for all users. But we are treading carefully and require a great deal of support from our colleagues around the country working on these issues. With the assistance of national organizations such as the Alliance for Community Media, Electronic Frontier Foundation (EFF) and Computer Professionals for Social Responsibility (CPSR) we are highly optimistic that we can establish some precedents in Vermont that can apply throughout nation.

Lauren-Glenn Davitian is Coordinator of Chittenden Community TV (CCTV), 294 N. Winooski Ave., Burlington, VT 05401. Telephone (802) 862-1645.

The Next Generation of Delivery Systems

by Abigail Norman

On July 17, the Federal Communications Commission voted to let telephone companies carry TV over telephone lines. The code word is "video dial tone." The press called the move "a giant boost to the development of new technologies," and advocates for public access are working harder than ever to try to ensure that we, the people, will be able to use whatever new systems arise.

People in the field have awaited the FCC's decision for a long time. Here's the big picture.

Two advances – fiber optics and the digitization of information – have been eroding technical distinctions between video and other forms of communication. In technology now becoming obsolete, phone calls and cable TV travel as waves through thick copper wires. But increasingly, new technology encodes all kinds of information – written or spoken words, numbers and calculations, still or moving pictures – as series of digital, on-off pulses, and sends these pulses, in a stream through skinny, flexible fibers. Both cable companies and telephone companies are gradually replacing their copper wires with fiber. Much more information can pass through these smaller cables, and all the information can travel in the same digital form.

The future is unclear. We used to imagine picture-phones following toaster ovens and other clever appliances into our homes, and we wondered how we'd cope if we were in our pajamas when the picture-phone rang. That future has not materialized.

Now representatives of GTE and other big phone corporations say video dial tone will bring "an electronic shopping mall" into our homes. As consumers, we'll sit in our living rooms choosing from electronic menus. We won't have to make a phone call to order the movies of the week or a cubic zirconium engagement ring; we'll just use our remote controls.

Is there a place in this electronic shopping mall for the "electronic soapbox" that public access channels provide? As Chris Hill, president of the access center in Buffalo, New York, points out, free speech is not protected in shopping malls, because a mall is private property. Where in this picture is the non-consumer – the speaking, thinking, creative member of an engaged community?

Other technical developments contribute to a widening array of options. We leave and receive messages on telephone answering machines. We use touch-tone phones to transfer funds between bank accounts. We also use phone lines when we tap into computer bulletin boards via modem, or transmit paper documents via fax.

In one vision of the future, perhaps we can think of programs on the new tele-video-phones now. Will we be able to leave video messages for friends or for strangers on video answering machines? Could video conference calls mean unlimited audiences for tapes we leave on our VCRs? How about video phone booths? Video conversations, or video jam sessions? Video hot-lines? The Wall Street Journal quotes former FCC Chair Alfred Sikes saying, "With the explosion of camcorders... there is a potential for such a network to be used by friends and family to transmit video pictures."

But will anyone be able to put a video signal onto a video-phone, or will regular phone users only be able to receive video – that is, order, pay for, and watch it on our screens? How high will the tariffs be for interactive service? The FCC ruling says the price of getting video dial tone in the home will be regulated, but phone companies provide 'enhanced' service on an unregulated rate. Will the 'basic' rate include something akin to public access? Will the right to operate something like a channel cost millions of dollars? Or will we pay only a quarter a minute to send or receive a local video call?

An equally crucial question is what will happen to public access centers like SCAT, which offer production training and equipment to the public at practically no cost? Cable companies only pay for public access centers because local franchise agreements make them do so. The FCC ruling says phone companies transmitting video will not have to sign local franchise agreements. Will cable companies bring strategic lawsuits challenging their franchise obligations, claiming unfair restriction of trade? Or will state public utilities commissions establish access requirements for phone companies?

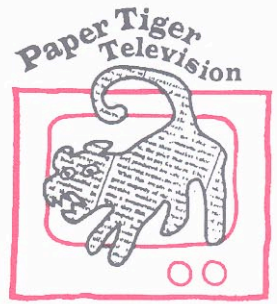
From another angle, the FCC ruling also said phone companies could provide video dial tone, but not their own video programming. Most of the big programming services – CNN, HBO, etc. – are related by co-ownership to the big cable companies, not the least of which is Somerville's own Warner Cable. The trade press is full of articles about telephone companies pressing for "program access," or the right to put their own programs on their new video channels.

"Indeed," The Wall Street Journal reports, "all sides agreed that the decision is certain to wind up in court," delaying any visible change "for many months, if not years." Additional legislation from Congress may also affect the pace and direction of change.

At July's convention of the National Federation of Local Cable Programmers (now the Alliance), lawyer Joseph Van Eaton outlined three possible scenarios. First, the pessimistic scenario: Court cases brought by cable companies destroy cities' ability to impose franchise requirements, including channel time and payments for public access. Second, the optimistic scenario: Phone companies entering the video field provide centers that teach and provide equipment; and producers pay reasonable fees to present their programs on a channel. Access would be open to all, on a non-discriminatory basis. Third, the practical challenge: Advocates of democratic communications develop a theory, a framework and a practical plan that serves the public interest while promoting the development of advanced technology.

For the moment, the FCC will review companies' video dial tone proposals on a case-by-case basis. Then, in three years, it will review its ruling. What we see now is only one step in the ongoing merging of telephone and cable television services. Joe Van Eaton remarks, "This gives us an opportunity to put forward a competing vision," one which takes democratic communication into account.

Abigail Norman is Executive Director of Somerville Community Access Television, Inc., 90 Union Square, Somerville, MA 02143. Telephone: (617) 628-8826.



"Smashing the Myths of the Information Industry!"

Video Dialtone Videos Available

Video Dialtone: Mailing Our Free Speech (28:00)

Picture a television future where hundreds of channels come into your home through a single telephone line. More choices, more competition, faster advances in technology – that's what the FCC says. But to date, there's no guarantee that the public will be able to afford access to all the goodies at the end of the telephone line. Tune in and find out what's being planned for your communications future, and what you can do about it in this video produced by Paper Tiger TV and shown on Deep Dish TV.

For more information, contact Paper Tiger TV at 339 Lafayette St., New York, NY 10012. (212) 420-9045.

MODEM WORLD is a new 30 minute cable program dedicated to BBS, online information services, Internet issues, and other online topics. The program is aimed at providing modem users with news and information. It will be distributed via videotape and on satellite.

For more information, contact Walter White & Associates, 7384 Old Dominion Court, Memphis, TN 38125 (901) 754-6520.

TechLine (TL) Headline Story Excerpt Service:

By T. Andrew Lewis

NEW YORK (TL) The controlled propagation of electromagnetic waves superimposed with audio is now ready for service. The newly formed Federal Communications Commission is charged with parceling out the limited amount of broadcast frequencies over which newly formed "radio stations" can transmit voice and music. Such radio stations are commercial enterprises. The public will soon be able to purchase radio receivers to listen to such programming.

BALTIMORE (TL) The controlled propagation of electromagnetic waves can now be superimposed with video in addition to the audio signals now available on radio. This phenomenal new communications medium is called television, and will be operated by commercial corporations. The recently created Federal Communications Commission will regulate the new industry by fashioning rules and assigning the frequencies over which the newly formed "television stations" can broadcast their picture and sound programming. Television receivers for purchase by the public are expected to be extremely expensive in the beginning, but will soon be reasonable enough to experience sales in the thousands.

DENVER (TL) Cable television, which began as an "only alternative" to broadcast TV in areas of poor or no signal reception, has now emerged as a viable, independent communications medium. Its primary advantage over broadcast TV is the ability to offer a large number of channels for viewing. The fledgling systems are now offering as many as 26 channels compared to the average seven channels provided by broadcast television.

Perhaps the most unique selling point touted by cable TV operators and marketers is its ability to provide communities with local information as well as to provide local individuals and organizations access to one of the many channels for the purpose of programming their own information and ideas over the cable. Cable companies are licensed locally, usually by cities, to which the companies pay a small franchise fee to support local access and regulatory activities.

CENTERVILLE, OH (TL) A new organization, the National Federation of Local Cable Programmers (NFLCP), was formed today. The NFLCP will promote the development of local programming and ensure that public, educational and government access continues as a vital force in local media as well as provide information and advocacy concerning related public policy issues.

LOS ANGELES (TL) The development of fiber optic cables will enable virtually unlimited channel capacity on cable television systems. The product will also revolutionize telecommunications via telephones which will be able to carry exponentially more information, including video.

WASHINGTON (TL) The FCC has issued an order enabling telephone companies to carry video programming over their telecommunications network. The "telcos" are now busily planning the conversion of their network from partial "twisted pair" copper wires to fiber optic cables. Hundreds of channels will be available. This will place the "telcos" in direct competition with cable companies. However, while cable companies are licensed locally and pay a small franchise fee to support regulatory activities and public, educational and government access activities, the FCC specifically excluded telcos from this local participation process. The NFLCP, a national telecommunications access advocacy association, has filed comments in vehement opposition to the market driven FCC scheme.

WASHINGTON (TL) The National Federation of Local Cable Programmers, a national telecommunications educational and advocacy association founded in 1976 officially changed its name to the Alliance for Community Media. The name change was necessitated by the broadening effects of emerging technologies upon the interests and involvement of the membership.

CHICAGO (TL) The Universal In-home Terminal Unit (UITU) is now officially universal. Ninety-four percent of homes are equipped with the communications devices which now replace the telephone. The Alliance for Community Media and other consumer and First Amendment organizations oppose any wholesale changeover to the new system until true universal service – 100% of homes – has been achieved.

WASHINGTON (TL) The U.S. Postal Communications Service has announced that the primary method of first class communications will be electronic mail. E-mail will replace hard copy mail on January 1st. The system is accessible to all through the Universal In-home Terminal Unit.

SAN FRANCISCO (TL) Galactic Bell has sued in federal court to have the PEG access requirement for the Personal WristComm arguing that even though the unit does deliver video programming, because the WristComm unit is also

a personal communications device (successor to the telephone) it should be exempt from access requirements. The court ruled in favor of the respondents (including the Alliance for Community Media) stating that freedom of expression and access attaches to all communications devices that are capable of receiving general programming.

WASHINGTON, WEST GLOBAL SECTOR (TL) The 50 year old Global Free Expression Resolution has been challenged in a Sacramento, West Global Sector court. The petitioners argue that programs on the access wave length of TelepaVue that induce debate should first be allowed to define the parameters of such debates prior to entry into the human brainwave system.

TelepaVue is the increasingly dominant communications system in which programs are transmitted on carrier thought waves in a modulation process that permits alpha brain wave program selection. The Alliance for Community Media, a hundred year old organization, seeks to have the case dismissed, and is urging increased public vigilance of the rights of free expression and debate both individually and collectively. These rights have come under significant challenge recently by some sector governments who favor the establishment of uniform brain wave forms.

Communication is the area of human endeavor most profoundly affected by emerging technologies. These headline stories (some based upon prior facts, some on futuristic fiction) focus upon the significance of technological evolution to effective human communication. The Story Circle. The Amphitheatre. The Printing Press. The Soap Box. Typewriter. Microphone. Telephone. Audio Recorders. Radio. Television. Photocopier. Satellites. Cable Video. Communications. Personal Computers. Video Recorders and Players. And beyond.

The evolution of information to its position as the primary currency of democratic power requires that we carefully plan for the management of evolving technologies that will enable us to exchange that currency. The public interest must equal or supercede market interests.

This issue examines emerging technologies in telecommunications and their impact upon our abilities to exchange information effectively.

T. Andrew Lewis is Executive Director of the Alliance for Community Media (formerly the NFLCP), at 666 11th St. NW, Suite 806, Washington, DC 20001-4542. Telephone (202) 393-2650.

Pixel Dust and Rainbow Slush: Dichotomies of Digital Distribution

by Dirk Koning

Telecommunications Inc.'s (TCI) recent announcement that they will phase in digital compression by early 1994 was greeted almost universally with rave reviews and excitement. TCI's CEO, John Malone, went so far to say, "When we look back, we'll say it (digital compression) was a major milestone for our industry, our country, probably our civilization." Civilization, John? Seven hundred channels, charged by the minute, controlled by those responsible for home shopping, pay-per-view and the recently launched, "Game Show Channel"?

Two simultaneous events are occurring here. First and foremost is the digital conversion of television information from its analog source and secondly its compression into one tenth the usual bandwidth necessary for transmission. It's kinda' like turning a two track road into a ten lane highway without widening it. Depending on your franchise, this could mean that you could crunch ten access channels onto each 6 Mhz of bandwidth available to your community. (That would be 70 channels here in

Grand Rapids, Michigan).

More important than compression though is the paradigm shift in information trafficking on the most fundamental level. Instead of information waves (analog), we'll now have on/off pulses of particles (digital). These pulses are virtually the same as the way computers move information, and the way audio information is being converted and the way lasers (Light Amplification by Stimulated Emission of Radiation) send information in light bursts down fiber optic lines. We are talking convergence. Convergence of technology, convergence of signal type, convergence of hardware, software, chips, systems and markets. Some folks have been so bold as to suggest that Malone and Company have actually made an expensive mistake in investing in digital compression on co-axial cable instead of expanding the width of the highway with fiber deployment. Do you cram more shit into the same space (digital compression) or do you go rebuild with fiber and expand the space available? Short term compression, long term fiber.

With the discovery of lightwave manipulation

and communication, we humans have stumbled across the Pandora's Box of our own biological infrastructure. Without knowing it, we may have closed some evolutionary loop, forever altering our biochemical and physiological make-up. Oh well.

The traditional delineation between media, its methods, regulation and users is blending pixel by pixel into a convergence of rainbow slush. Digitally coded information all looks alike, whether it is ultimately destined to illuminate your TV or computer screen, vibrate your telephone, stereo speaker or tickle grey matter into delirium tremors.

Voice, video and data are short-circuiting each other and crashing in gigabits and bytes and screaming through uncharted water to crash onto new shores. Sink or swim? I think I'll just float awhile.

Dirk Koning is Executive Director of the Grand Rapids Community Media Center, 50 Library Plaza NE, Grand Rapids, MI 49503. Telephone (616) 459-4788.

Perspectives on Policy, Technology, and Markets for the Future

By Thomas A. McCain

The important components of any infrastructure include technology and its political and economic exigencies. To understand telecommunications networks, part of the telecommunications infrastructure, is to understand the interdependence of technology, markets and policy. Existing telecommunications networks emerged from the interaction of these components, so will the future networks. Technologies without users are mostly found in museums, if they still exist. Telecommunications markets have been determined by a host of entrepreneurial efforts and inventions, as well as by government regulation and policy. It is critical that the concept of telecommunications networks, as part of a telecommunications infrastructure, be understood to include these three interlocking parts. To change network technology is to change network markets and policy. To change markets is to change technology and policy. To advocate change in network policy is to advocate a change in the relationships which currently exist between and among technology, markets and policy.

An important distinction between types of telecommunications businesses is whether a firm's essential activity is concerned with creating content or in distributing content, or product vs. process and content vs. conduit. Telephone companies have been in the distribution or conduit business, now many are moving towards the information and content components of telecommunications. Cable television began as a conduit enterprise. The ability to distribute programs via satellite technology helped to transform the cable industry into an enterprise of both content and conduit. Once the cable networks could by-pass the broadcast networks to reach viewers, the interdependent nature of technology, markets and policy allowed the industry to

change remarkably.

There are four areas where social values clash with policy. **Purview** – or locus of control be it local, regional, national, international. **Financial support** – the three models for broadcasting are advertising, subsidy and subscription. **Ownership** – three predominant forms are private, public corporation, and government. **Content/function** – there is a social value tension between information and entertainment and consumer users vs. business. These four social value issues are framed by two competing orientations to telecommunications policy – market forces vs. social objectives.

So where and how will the telecommunications networks for the 21st century be decided? I think that it will be the result of numerous factors including these three important ones: 1. The functions performed by existing networks will continue. 2. New configurations from the competitive marketplace will emerge. Many of the questions regarding who should provide what service at what cost and under what conditions will be decided by consumers in the marketplace. 3. Collaborative efforts of government, education, business and other institutions. There are ways to share and collaborate on research facilities. These are exciting times, but they are also times where we must write new policy and establish new frameworks in which people can use telecommunications services which are important to changes in their lives.

Thomas A. McCain is Professor of Communication and Co-Director, Center for Advanced Studies in Telecommunications, at Ohio State University, 210 Baker Systems, 1917 Neil Ave., Columbus, OH 43210 (614) 292-3095.

Excerpted from Perspectives on Policy, Technology and Markets for Ohio's Future Telecommunications Networks.

"Who will benefit from this new telecommunications infrastructure? Ten years ago, the answer would have been "everyone." When AT&T ran the telephone system, it was bound by the principles of universal service and equal access for all. But since 1984, when the regional operating companies were divested, their primary obligation has been to their stockholders, not to society. So it is no surprise that the wiring plans for the new network technologies favor large financial institutions, Fortune 500 corporations and others that can generate the greatest revenue for the phone companies. Those not on the path of money and power will have to wait in line for the information age."

*– Richard Mandelbaum,
New York Times
December 20, 1992*

Additional Resources

There is a plethora of resource materials from books and magazines to academic papers to BBS conferences on the multitude of facts, issues, and ideas about the past, present and future of communications. Our suggestions are just a small sample of the information that is available. Check your bookstores, libraries and BBSs frequently. There's always something new and interesting.

DEMOCRATIC COMMUNICATIONS IN THE INFORMATION AGE by Janet Wasko and Vincent Mosco, Editors, \$21, Ablex Publishing Corporation, (201) 767-8450.

This book explores who owns communications systems? Who controls them? And for what purposes? Contributors examine the meaning of democratic communications and its role in society; the positive and negative effects of new information technologies on communications; and the use of communications resources by progressive social movements and whether they can rely on the mainstream media to convey their message.

THE WHOLE INTERNET USER'S GUIDE AND CATALOG by Ed Krol, O'Reilly & Associates

An excellent book that describes how to get access to the Internet, and how to use it once you're there. In bookstores for \$24.95 or call (707) 829-0515.

VIRTUAL REALITY

by Howard Reingold, Touchstone Books, \$12.

Takes us to the front lines of this revolutionary new technology that creates computer-generated worlds complete with the sensations of touch and motion and explores its impact on everything from entertainment to particle physics.

CRITICAL CONNECTIONS: COMMUNICATIONS FOR THE FUTURE

US Congress, Office of Technology Assessment.

MUST reading for everyone in access. GPO stock #052-003-01143-3. Superintendent of Documents, Government Printing Office, Washington, DC. 20402-9325.

To order call (202) 783-3238.

ALLIANCE FOR COMMUNITY MEDIA YELLOW PAGES

A MUST for all access centers. It has a large section on networking and includes an important list of related organizations and what they do. It also lists Alliance organizational members and contains a directory of consultants and much more. You can order it from the Alliance office in Washington, DC. Check out the handy order form on the inside back cover.

STRATEGIC COMMUNICATIONS FOR NONPROFITS

Published by the Benton Foundation and Center for Strategic Communications, edited by Larry Kirkman and Karen Menichelli.

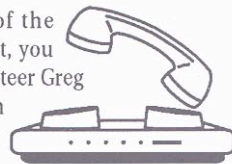
A set of nine guides to media and communications techniques and technologies for nonprofit leaders. It encourages an understanding of the strategic role of communications techniques and technologies – knowing how and when to use them, how to play them off one another, how to combine them into a comprehensive media plan.

For more information or to order contact: Benton Foundation, 1710 Rhode Island Avenue, NW, 4th Floor, Washington, DC 20036, (202) 857-7829.

A Great Way to Stay in Sync

The Alliance Bulletin Board

How many of you have taken advantage of the Alliance bulletin board service? If you haven't, you should. In June of 1985, with the help of volunteer Greg Smith, the Alliance began an electronic BBS (bulletin board service). For just the cost of your long distance phone bill you can access the BBS. There are no additional charges or fees. One recent change to the Alliance BBS happened this summer when the Alliance's Board of Directors approved a one year trial BBS collaboration with the National Academy of Cable Programming (sponsors of the ACE Awards for the cable industry), which is underwriting \$1000 of the costs of the BBS. Also, the BBS's name has been changed to the **National Cable Programming BBS**.



So, how does it work? The BBS is a communications application which enables personal computers to speak remotely to a centralized host computer. In the case of the Alliance/National Cable Programming BBS, the host computer is located in Illinois. It requires a modem, and a computer equipped with a serial communications card. These are standard configurations which many of you may have.

What will you find when you log on? That's up to you and the other members who use it. Every participant is issued an ID when they initially log on. This number is used to establish a personalized "electronic mailbox" on the host system's hard drive. Mail can be sent to other members' boxes or received for reading or "down-loading" into your personal computer.

This electronic BBS is operated as a means to promote timely communications between people interested in local television programming and production. Whenever possible this system will be available 24 hours a day, 365 days a year. Except for the public sign-on, there is no limit on the length of calls, nor the number of times you may call each day.

The system provides three major functions: 1) an electronic mail area where users may exchange public and private messages; 2) an information section, which includes instructions on the use of the BBS itself, articles and other longer-form information files of interest to local programmers or producers; and 3) a file area where users may exchange computer programs and other files relating to local programming and production.

To use the BBS. You must have any type of computer, modem, and communications software that can operate at 300, 1200, or 2400 bits per second; set up your software to dial the BBS at (217) 359-9118; set your system to use 8 data bits, one stop bit, and no parity. When you connect you will be asked for a user name. Type "NEW" to apply for a new user account. The system will then ask you to enter your user identification (your address), your real name, and a password which allows you to log on again. After completing this information, you will have full access to the BBS. The system is menu driven and mostly self-explanatory. For additional help, type "I" at the main menu for the Information section. The data files on the BBS are cleaned up daily. Messages more than six months old and are automatically deleted; also, user IDs that have not been used for one year will be removed.

According to Greg Smith, who has run the BBS for the past seven and a half years, it is currently underutilized and very available. About 75% of the participants are access people. And while Greg runs the system he is not an information provider. He says the BBS could use any kind of article length pieces on local programming; also, information on computer software for access related functions. He feels an energetic user could make a real difference to the interest in the BBS. So let's get set and log on to this incredible communications opportunity.

For more information you can call Greg Smith (217) 352-9655 (voice) or log on the BBS (217) 359-9118. Or for a 12 page information packet on the BBS you can call Paul Braun, Vice President of Programming – National, Time-Warner, (303) 649-8013.

Sections of this article were provided by John Risk, of the Communications Support Group, Santa Ana, CA.; Paul Braun; and Martha Schmidt with help from Greg Smith.

The Well and Computer Networks

There are hundreds of electronic bulletin board and conferencing systems worldwide. Many offer similar services and may be used to communicate with everyone else. Elsewhere in this issue we have listed sample resources such as computer support groups and books and magazines. One example of a computer conferencing system is the Whole Earth 'Lectronic Link otherwise known as the WELL. Through your account on the WELL you have access to a broad range of services that you can customize to meet your needs as an individual or group. You connect the WELL with your own computer and take part in discussions with other people on the WELL, in either private or public "conferences" (discussion areas). Most conferences are public – anyone can join them – others are private and are meeting places for businesses and groups and their members and associates. The WELL provides an e-mail system that allows you to send messages to individuals on the WELL and on thousands of other computer systems all over the world. More than anything else, the WELL is a place to meet and interact with other people.

The WELL also provides full Internet access,

hooking you up with a worldwide system that connects hundreds of thousands of computers using high-speed, dedicated lines, and making the WELL a node in a global communications network. The WELL is \$15 per month plus \$2 per hour billed by the minute plus your long distance telephone charges to Sausalito, California. This also includes 500k of personal storage space. You can get a WELL account by using your computer to call the WELL's modem lines at (415) 332-6106 and registering online. Or call (415) 332-4335 (voice). E-mail: info@well.sf.ca.us (more information).

Internet is a global information superhighway started by the government to link US allies and military bases that now links most of the world's academic institutions. It connects more than 5,000 networks and is said to be growing at a rate of 25% per month. Many universities are on the Internet and some may provide access to the general public. Access to Internet (and the cost) varies regionally. If you are a member of Internet you can call your local Internet site and log on computer conferencing systems with no long distance charges and many BBSs are on Internet. There are also a growing number of commercial

systems that provide Internet access. For more information, see *The Whole Internet Guide*. (Information on page 18).

If a local access phone line is not available there are long distance alternatives that can be less expensive than long distance phone company rates. Here are a few suggestions, but always ask – your conferencing network may have special arrangements.

The Compuserve Packet Network (CPN) – is a long distance switching network you can access locally and are charged \$4 per hour. CPN Customer Support (800) 848-8980.

PC Pursuit can be less expensive than CPN and special rates are available for disabled users. Call (800) 736-1130.

When asking computer activists for information resources, they recommended *BoardWatch Magazine*, a monthly magazine about online communications for BBS operators and callers. A recent issue contained quotes from the Clinton/Gore technology policy, a perspective on changes for the online communities in 1993, BBSs in ex-Yugoslavia, and a national list of electronic BBSs and online information services. Voice (303) 973-6038.

The Electronic Frontier Foundation

A new world is arising in the vast web of digital, electronic media which connect us. Computer-based communication media like electronic mail and computer conferencing are becoming the basis of new forms of community. These communities without a single, fixed geographical location comprise the first settlements on an electronic frontier.

While well-established legal principles and cultural norms give structure and coherence to uses of conventional media like newspapers, books, and telephones, the new digital media do not so easily fit into existing frameworks. Conflicts come about as the law struggles to define its application in a context where fundamental notions of speech, property, and place take profoundly new forms. People sense both the promise and the threat inherent in new computer and communications technologies, even as they struggle to master or simply cope with them in the workplace and the home.

The Electronic Frontier Foundation has been established to civilize the electronic frontier; to make it useful and beneficial not just to a technical elite, but to everyone; and to do this in keeping with our society's highest traditions of the free and open flow of information and communication.

The Electronic Frontier Foundation (EFF) is a public interest organization which seeks to develop and implement public policies that maximize freedom, civil liberty, and competitiveness in the new media environments being created by new computer and communications technologies. EFF was started in 1990 by Mitchell Kapor, founder and former CEO of the Lotus Development Corporation, John Perry Barlow, and pioneer developers of computer software and hardware. The Foundation and its membership believe that a new civil liberties organization like EFF – combining technical, legal, and public policy expertise – is needed to achieve the democratic potential of new computer and communications technologies.

Excerpted from EFF literature. Contact the EFF at 666 Pennsylvania Ave. SE, Suite 303, Washington, D.C. 20003. Telephone (202) 544-9237, fax (202) 547-5481).

The Electronic Frontier Foundation offers access to their online document library via the Internet Gopher protocol as an electronic means of access to EFF documents. For more information on online access to documents, send postal mail to EFF, 155 Second Street, Cambridge, MA 02141; or e-mail, eff@eff.org

"When Mitch Kapor and I first founded the Electronic Frontier Foundation, we were eager to assure that the rights established by the First Amendment would be guaranteed in Cyberspace. But it wasn't long before we realized that in such borderless terrain, the First Amendment is a local ordinance."

"ISDN, a technology that is available today... is rapid enough to jump start the greatest free market the world has ever known. Widespread deployment of ISDN, combined with recent developments in compression technology, could break us out of what Adobe's John Warnock calls the "ascii jail," delivering to the home graphically rich documents, commercial software objects, and real-time multimedia. Much of the information now inappropriately wedged into physical objects – whether books, shrink-wrapped software, videos, or CD's – would enter the virtual world, its natural home. Bringing consumers to Cyberspace would have the same invigorating effect on online technology which the advent of the PC had on computing. We admit that over the long term only fiber has sufficient bandwidth for the future we imagine. But denying "civilian" access to Cyberspace until the realization of a megabillion buck end-to-end fiber network leaves us like the mainframe users in the 60's waiting for the supercomputer. The real juice came not from the Big Iron but from user adaptable consumer "toys" like the Apple II and the original PC."

– John Perry Barlow, Co-founder of EFF and a lyricist for the Grateful Dead, from an article in *Impact*.

Computer Networks and the Emergence of Global Civil Society

By Howard H. Frederick, Ph.D.

"...the development of Mr. Clinton's No. 1 priority for improving the country's infrastructure: a national "super-highway" for data. This high-capacity, high-speed computer network could do for the flow of information what the transcontinental railroad did for the flow of goods a century ago and the interstate highway system did in this century. ...a widening dispute among some of the nation's most powerful industries, the new Administration and public-interest advocates. That dispute is over how best to build, and control, a project widely viewed as a national resource that would improve education, health care, scientific research and the ability of corporations to compete in the world economy... Mr. Gore argues that the private sector won't gamble on such a risky investment. Even if it did it would build not a superhighway available to all but rather a kind of private toll road open only to a business and scientific elite. He says a new national data highway should be a public network constructed and regulated by the Government for all Americans. ...in the final analysis the success of Gore's information superhighway won't be measured by frames per second but by who has access and on what terms (said Marc Rotenberg of CPSR)"

- John Markoff, *Building the Electronic Superhighway*, NY Times, January 24, 1993

In the last decade there has emerged a new kind of global community, one that has increasingly become a force in international relations. We speak of the emergence of a global civil society, that part of our collective lives that is neither market nor government but is so often inundated by them. Still somewhat inarticulate and flexing its muscles, global civil society is best represented in the global NGO Movement," non-governmental organizations and citizens advocacy groups uniting to fight planetary problems whose scale confound local or even national solutions.

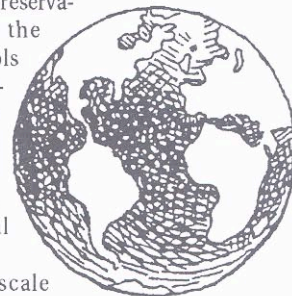
The continued growth and influence of global civil society face two fundamental problems: increasing monopolization of global information and communication by transnational corporations; and the increasing disparities between the world's info-rich and info-poor populations. Global computer networking makes an electronic "end-run" around the first problem and provides an appropriate technological solution to overcome the second.

In addition to transnational control of information, global civil society and the NGO movements confront the increasing gap between the world's info-rich and info-poor populations. In virtually every medium, the disparities are dramatic. *Ninety-five percent of all computers are in the developed countries. *Only seventeen countries in the world had a Gross National Product larger than total US advertising expenditures. *The USA and Commonwealth of Independent States, with only 15% of the world's population, use more than 50% of the geostationary orbit. The Third World uses less than 10%. *Ten developed countries, with 20% of the world's population, accounted for almost 3/4 of all telephone lines. The USA had as many telephone lines as all of Asia; the Netherlands, as many as all of Africa; Italy, as many as all of Latin America; Tokyo as many as all of Africa.

Even within the United States we have the info-rich and the info-poor. From the streets of Manhattan to the barrios of Los Angeles, from the homeless to the immigrant populations, from Appalachia to the inner cities, there are millions upon millions of our fellow Americans who cannot read or type, do not have access to computers, do not consume newsprint, cannot afford a book.

To counter these twin trends that threaten to engulf civil society with a highly controlled (focus) of commercialization, there has arisen a worldwide metanetwork of highly decentralized technologies - computers, fax machines, amateur radio, packet data satellites, VCRs, video cameras and the like. The are "decentralized" in the sense that they democratize information flow, break down hierarchies of power, and make communication from top and bottom just as easy as from horizon to horizon. For the first time in history, the forces of peace

and environmental preservation have acquired the communication tools and intelligence gathering technologies previously the province of the military, government, and transnational corporations.



The first large-scale impact of these decentralizing technologies on international politics happened in 1989. When the Chinese government massacred its citizens near Tianamen Square, Chinese students transmitted the most detailed, vivid reports instantly by fax, telephone and computer networks to activists throughout the world. Their impact was so immense and immediate that the Chinese government tried to cut telephone links to the exterior and started to monitor the Usenet computer conferences where much of this was taking place.

The Association for Progressive Communications (APC) Networks are trying to make an "end-run" around the information monopolies and to construct a truly alternative information infrastructure for the challenges that lie ahead. By providing a low-cost, appropriate solution for nongovernmental organizations and poor countries, they are attempting to civilize and democratize cyberspace.

Perhaps the most durable impact of the APC Networks is their promotion of that illusive phenomenon known as "world public opinion." One way that we can confirm the ascendance of global civil society is to examine the accumulating evidence for world public opinion, a cosmopolitan convergence of interactively communicating national societies. As we approach the third millennium, communications technologies such as the APC networks are transforming international relations. They have greatly accelerated the rise of global civil society and the NGO Movement. Not only do they report violations and victories of human rights; they are also demonstrating that communication and information are central to human rights and to the emergence of democratic, decentralized planet-loving movements.

Copyright, 1992, Howard H. Frederick, Ph.D.

Dr. Frederick has taught communications and international relations for more than a decade. He currently directs news services at the Institute for Global Communications. He may be reached at the IGC offices in San Francisco. This was excerpted from a paper presented at the Annual Conference of the Peace Studies Association, February 1992, and will be published in *Globalizing Networks: Computers and International Communication*, (Oxford, forthcoming).

Today's "lords of the global village" are huge corporations that "exert a homogenizing power over ideas, culture and commerce that affects populations larger than any in history. Neither Caesar nor Hitler, Franklin Roosevelt nor any Pope, has commanded as much power to shape the information on which so many people depend to make decisions about everything from whom to vote for to what to eat."

Ben Bagdikian *The Lords of the Global Village*, The Nation, June 12, 1989, p. 805

Global Networks

The Association for Progressive Communications (APC) is a world-wide partnership of member networks dedicated to providing low-cost computer communications services for individuals and organizations working for the environment, peace, development, health and public interest. The focus of their work is to empower local, indigenous organizations by encouraging expertise in and technology for computer networking. The APC feels computer networking is a powerful communications tool to foster true global partnerships, information exchange, and international decision making. APC partner networks are located in ten cities around the world. The APC Networks are highly decentralized and preserve local autonomy. One microcomputer serves a geographical region and is in turn connected with other "nodes". The local node collects the international mail, bundles and compresses it, then sends it to the appropriate foreign messaging system for distribution using a high speed connection. Within the APC, main nodes around the world bring the communication flow in from regional nodes. Messages are then exchanged and distributed around the world. The entire network is funneled onto Internet. In the US the partner network is the **Institute for Global Communications (IGC)** which is also the home for PeaceNet, EcoNet, and ConflictNet dedicated to peace, environmental preservation, and human rights.

E-mail can be exchanged with GeoNet, Internet, Poptel, Janet, Bitnet, UUCP, CompuServe, and most other academic or commercial networks. APC offers hundreds of public conferences. These include: events, calendars, legislative alerts, press releases, etc. APC also maintains databases which allow you to search lists of speakers, grant making foundations, bibliographies, or lists of resources.

For more information: APC Secretariat &/or IGC, 18 de Boom Street, San Francisco, CA 94107. (415) 442-0220 (voice), Email: apcadmin@apc.org or support@igc.org.

Another international group is **VIDEAZIMUT**, a coalition composed of organizations and individual using video and television as a means to the democratization of communications. The coalition is dedicated to defending and broadening access to voice and image for all those who are presently marginalized from them. In an age when new communications technologies, in particular video and television, lend themselves to democratization on a technical level the coalition aims to promote: greater access for marginalised communities; liberty of expression in the production of images and messages; and greater access to the means of dissemination of voices and images on the national and international levels. Coalition members are located in nine places globally.

For more information, contact General Secretariat, 3680 Rue Jeanne-Mance, 430, Montreal, Quebec, Canada, H2X2K5. (514) 982-6660.

The Local Civic Networks Project

A Test Bed for Grassroots Communications Initiation

By Richard Cívile

A Local Civic Network is a way to think about combining media to improve access to public information, to enhance participation in government, and to aid in the convenient discharge of public obligations. The Local Civic Network Project (LCNP) works with grassroots groups and policymakers to promote "bottom-up" communications initiatives. These initiatives provide testbeds for developing new forms of citizen participation, new ideas for information services and their delivery, and new policy models that can inform developers of state and federal policy.

Local Civic Networks can revitalize community institutions such as libraries, health clinics, public schools and city halls by interconnecting them to citizens in their homes. This will occur in limited ways using currently available technologies and become more prevalent as multimedia services and high-speed data networks become more available. Already we see examples of such services being planned.

In Davis, California the cable access group is developing a plan to create applications concerning the restructuring of Davis schools, encouraging electronic democracy and providing public benefits using cable, computer bulletin boards, voicemail and local radio. In Vermont, the LCNP has been working to promote public participation in long-range state telecommunications policy. [See *The State of Telecommunications in Vermont*, page 14] In Seattle, a CPSR chapter is organizing a civic network. Other civic computer-based networks hosted by universities and hospitals, known as "Freenets" have emerged over the past several years in Ohio. In Washington, D.C., CPSR is involved in developing the National Capital Area Public Access Network, or CapAccess. In Oregon there is a draft of a long range strategic plan for telecommunications recommending the establishment of community centers around the state to broaden local access to emerging network technologies – to develop new applications, to educate the public in their use and to help create new markets and jobs.

We believe that a public interest communications policy should embody four key principles: **universal service, privacy, public access, and connectivity**, and should undergird Federal communications policy for the 21st century.

Universal service should evolve beyond simple access to voice communications and extend to data and video communications.

Americans must have affordable, understandable and usable personal privacy protections when using telecommunications. The Fourth Amendment guarantees our right to be secure in our papers. Surely personal papers includes personal data and facts.

We believe that the principles of Public, Education and Government (PEG) access should apply to any telecommunications service regardless of the delivery system – not just Cable TV. A portion of the telecommunications infrastructure should be set aside for public, educational and government use. A portion of the service provider's gross revenue should be set aside for public programming, and subsidies should be used for low-income access.

Different telecommunications services should seamlessly interconnect for the ease and convenience of the public. Public access programming should not be balkanized within local service territories but should be available to all subscribers of any telecommunications service. Local exchange carrier and individual subscriber services should be unbundled and offered to the public in their elemental forms. Municipal governments, schools, libraries, entrepreneurs, small businesses and non-profit organizations should be able to provide information services to the public directly through the network on reasonable and fair interconnection terms and at no cost if such services render public benefits which could save the government money through a better informed population.

The Local Civic Network Project promotes new communications models developed at the grassroots level. These new models can spread like wildfire, shaping at first state policy and later, national policy. There is good evidence now that providing interactive imaged information directly to the home could save the country a lot of money – perhaps hundreds of billions of dollars each year – by addressing such areas as public health and job training.

To fulfill the broadest impact of benefits through Local Civic Networks, we must consider policies which will vitalize our community institutions, and enable them to provide sophisticated, interactive, imaged public information to the home.

Excerpts from the Open Forum on Library and Information Services Role in the National Research and Education Network (NREN) July 1992. By Richard Cívile, former Director for the Local Civic Networks Project of the Computer Professionals for Social Responsibility (CPSR). Currently he is Director for the Washington, D.C. office for the Center for Civic Networking, 666 Pennsylvania Ave. SE, Suite 305, Washington, D.C. 20003. (202) 408-1080.

More Organizations

The **MEDIA ACCESS PROJECT (MAP)** is a non-profit public interest telecommunications law firm which promotes the public's First Amendment right to receive information. "Telecommunications Policy Will Be a Major Determinant of Whether Ours Will Continue To Be a Just Society. Futurists have long anticipated that the marriage of computer, satellite, and fiber optic technologies will transform our culture and, quite literally, the mechanisms of self-governance. Democracy itself may be in the balance. Affordable access to data, news, entertainment and information can enable more Americans to participate actively in the process of self-governance. Excerpts from the Policy Statement On Telecommunications and the Future of the Democratic Process. Media Access Project, 2000 M Street, Washington, DC 20036 (202) 232-4300, Andrew Schwartzman, Executive Director.

The **TAXPAYER ASSETS PROJECT (TAP)** started by Ralph Nader to monitor the sale and management of government property. Among the public assets they have investigated are government information resources, government-funded software, and government funded information systems. TAP, 12 Church Road, Ardmore, PA 19003, (215) 658-0880, James Love, Director.

NATIONAL VIDEO RESOURCES, Inc (NVR) is a non-for-profit foundation that identifies and helps to solve the problems facing the dissemination of independent media. NVR, 73 Spring Street, Suite 606, New York, NY 10012 (212) 274-8080.

Creating a Public Interest Vision for the Future

By Kathryn C. Montgomery, Ph.D. & Jeffery Chester

A full-scale battle is underway which will radically transform the American media system. The country's giant communications industries – broadcasting, cable, telephone, and newspaper – are competing for control of telecommunications in the 21st century. The way this conflict is ultimately resolved will determine the shape of the telecommunications infrastructure, how it will be used, and who will have access to it.

Because we now live in an "Information Age," decisions made in the next two to three years will have a profound impact on every aspect of our society – from education to work to culture. The transformation of our nation's communication system will have even greater consequences for the health of our democracy – from how well informed we are as citizens to whether and how we vote.

Though the American media system has been undergoing major changes for the last two decades, the current restructuring is the most significant in its history. It has been precipitated by several major developments:

Technological innovation. Driving this transformation are a number of new technologies now being put into place: fiber optics, channel compression, high definition television, direct broadcast satellites, and digital imagery and sound. Various combinations of these innovations will produce new forms of production, distribution, and reception. The next generation of television will be a combination of telephone, personal computer, compact disk, and TV.

Struggle for control. This wave of technological development has disrupted the traditional balance of power among the communications industries. It has generated a flurry of turf battles, with some players jockeying for new and more powerful positions, as others fight to protect their eroding markets. This intense power struggle was triggered when the regional telephone companies launched aggressive campaigns to enter the television and information delivery business, promising to build a sophisticated advanced fiber optic network that could eventually supplant both cable and broadcast television.

Consolidation of media industries. Ironically, even as public battles are waged in the press and in Congress, there is an underlying movement toward further consolidation both within and among the communications industries. Some of the largest cable, telephone, newspaper, and broadcast companies have already begun launching a series of joint ventures and "strategic alliances." Experts are predicting that it will only be a matter of a few years before these kinds of cross-industry alliances will resolve the current conflicts among competing industries. The result will be a small group of large vertically and horizontally integrated conglomerates dominating the media system.

Promise and Threat. The changes taking place in our telecommunications system could create opportunities to make it more vibrant and diverse, and to achieve much of its long unfulfilled potential for education, culture, and politics. In addition to spawning a new generation of consumer services, the combination of expanded channels, affordable production, and interactive capabilities

could: create an infrastructure for valuable community services; provide new outlets for cultural expression; stimulate local and national economic development; open the media to a wider range of voices; and offer citizens new opportunities for participating in government.

However, in the absence of public interest policies, these potential benefits may never be fully realized. More disturbing is the possibility that certain fundamental features of our current media system – which we now take for granted – will be lost:

Free over-the-air broadcast television will most likely disappear as cable and fiber optic systems become the primary means of distribution.

Local news, public affairs, and cultural programming could ultimately be supplanted by national programs, as ownership of media properties is increasingly concentrated in the hands of large, multinational conglomerates and the public service obligations to communities are eliminated by deregulation.

Public television could be drastically cut back or even eliminated in the next telecommunications system.

Public interest vision. The current stalemate among the major corporate interests has created a unique opportunity – a narrow "window of necessity" – for the public interest to be asserted, for the debate to be reframed in terms of the larger democratic and social consequences, and for legislators and the public to become centrally involved and ultimately decide the key questions of public policy.

In order to ensure that the needs of our pluralistic and democratic society are well served, we need a **public interest vision** for telecommunications in the 21st century. That vision should include a comprehensive policy framework and a range of policies. At the very least we should call for: universal service, national public networks, local and state information networks, non-profit rates, new national networks, multicultural programming and new funding streams and mechanisms that would guarantee the production and distribution of the widest range of programming and information.

Call to action. If any of these features are to become part of the next telecommunications system, a number of steps will need to be taken during the next two to three years. The following are the most immediate and critical:

Research and policy development. Experts need to be brought together to develop and implement a public interest research agenda for telecommunications in the 21st century. This research should be focused on fully exploring the potential of the new communications technologies and creating specific policy options.

Organizational support. Efforts need to be made to build support for this public interest agenda within the non-profit and public interest communities, and press.

Press and public education.

Kathryn C. Montgomery, Ph.D. and Jeffery Chester are Co-Directors, Center for Media Education, P.O. Box 33039, Washington, D.C. 20033. (301) 270-3379.

The Center is a public interest consumer organization whose goal is to promote the full democratic potential of the electronic media through educating the public about critical media policy issues and by encouraging the widest participation in the electronic media.

The Marriage of Television and Computers

By Alan Bushong

For years, advances in computer technology have made profound impact on television production equipment. While the use of computers is most obvious in character generation with the growing presence primarily of the Commodore Amiga, a far more dramatic change—one which promises to reach to home consumer level—appears to be just around the corner: the replacement of videotape with recordable, computer accessible video disks. As with any technology, the promise is great. However, if we use camcorder technology to base a realistic view of the impact of “floppy optical” video disk storage, this amazing development may do no more than create a new cottage industry for the highly educated and motivated few who “get there first.”

Top Ten Complaints about Using Videotapes (with Industrial VCRs)

10. Seems like editing equipment requires space the size of an efficiency apartment.
9. Too fragile: damage always occurs on the best shots.
8. Take up too much space—library shelves always full.
7. Deteriorate too fast—can you say soft oxide?
6. Clog heads every time you are on a tight deadline.
5. Lose quality each time a tape is copied or transferred in editing (the Xerox copy principle).
4. Expense and time involved in making work copies discourages most non-professionals from taking precautions.
3. No easy way to edit “on the road”.
2. Finding footage on videotapes is *so slow*; important materials are always at the other end of the tape.
1. Practically have to be a brain surgeon to use editing equipment.

The Technology. Computer accessible video disks offer so many advantages over fragile, slow access videotapes. Digital audio and video can be copied 100 times without signal quality loss. Random access shortens the distance to any material. And lap top computers turn the passenger seat of a car into a mobile editing room, using computer commands is increasingly familiar to the population at large.

With digital video and audio in place, the barrier to converting television production to disk has been storage capacity. Video requires a lot of space, as is shown by the speed of video heads combined with the length and overall size of tapes. That barrier is falling. Floppy optical disks nearing the market have 5-10 gigabyte storage, enough for nearly three minutes of full motion, full screen video. Generally, research and development is one or two prototypes ahead of the models on or near the market, so practical use of production video disks seems around the corner. Warning: I'm neither an engineer nor a computer whiz; my apologies for errors in this scenario.

Applying the Technology. Media non-professionals with a palm-sized Hi-8 camcorder could drive 50 miles to an oil spill site at 2 p.m., document damage, take testimony of residents and those responsible (if anyone admits it), edit a 15 minute segment on the ride home, and televise the segment during a live studio show at 7 p.m.

Remember the Camcorder. The ability for *non-professionals* to edit television, especially extensive testimony, by using computer skills rather than learning to use a traditional editing system would enable a vastly larger group of people to speak selectively on television. But will that happen? The presence of camcorders has spawned several home video comedy shows, has created cottage industries and has produced several videotapes which have had great news impact, but appears to have done little to put televised communications within the reach of the general populace. Without a concentrated effort led by access centers, what else can be expected of computer disk video?

Alan Bushong is Executive Director of Capital Community Television, 585 Liberty St., Salem, OR 97308-2342. Telephone (503) 588-2288.

If you are in Washington, DC, go to the Smithsonian History Building and see the Age of Information exhibit. It illustrates how quickly and far we have come with our communications tools. Also at the Library of Congress there is the National Demonstration Lab (Madison Building). In a two hour demo you can see some of the interactive programs being produced by educators and the library. Call (202) 707-4157 for an appointment.

Transitions

The “Village Voice” announced in its December 22, 1992, issue the demise of “The Tube”, formerly a regular column in the Voice. To quote “The Tube, 1985-1992” “Earlier this year, months, if not years before it was expected, the FCC approved the entry of the nation's telephone companies into the TV industry. The change could be seismic: If the telcos get around to threading our country with fiber optic lines, Americans may soon live in homes where their TVs, computers, and telephones become interchangeable. A generation will grow up watching Roseanne in front of the same screen on which they compose their book reports, play Nintendo, gaze at their cassette of “Wayne's World” speak to grandma in Florida, and hack into their elementary school's personnel files.

So, in a world where network programmers, computer programmers, and Ma Bell execs are competing for your time and your dime, it's begun to seem a bit antiquated to devote a section of the Voice to television without giving these other modes of communication their due. Hence, *Wired*. *Wired's* focus will be television and computers, but it will pay attention to all communications media (e.g. radio, telephone) as well as anything that fall under the heading of “Information Technology”. ...we want to hold a sustained discussion about how people interact with computers, how computers are changing our notions of privacy, pleasure, and engagement. Will the technological revolution close the gap between rich and poor, or widen it? Will it usher in a new era of civic involvement, or squelch the last gasp of representative democracy? Or will it, in the end, have little more effect than a WIN button?”

—Jeff Salamon

Additional Resources

WIRED is a brand new bi-monthly independent magazine affiliated with no other publishing concern. “There are a lot of magazines about technology. *Wired* is not one of them. There are a lot of lifestyle magazines. *Wired* is the first mindstyle magazine - about the most powerful people on the planet today: the Digital Generation.” “*Wired* is the merger of the media, telecommunications and computing which is transforming every aspect of how we work, play, entertain, educate, and inform.”

Wired will be available on the newsstands for \$4.95. call (415) 904-0660.

IMPACT published quarterly by the Social Impact Group and Public Service Committee of the Boston Computer Society. Recent issues covered Electronic Democracy, US Technology Policy, the Computers and Social Change, Nonprofit and Community Groups Opportunities and Resources, Towards a Social Action Guide for Computer Professionals, On the Environment, and much more. A wonderful cross section of information and issues. They let npos use their articles. To become a member and receive *Impact* write The Boston Computer Society, One Kendall Square, Cambridge, MA 02139.

Swinging Towards New Formats

By Frederick Thomas

Because of the rapid pace of change inherent in video technology making a decision about changing your format is a little like playing Tarzan...any of the vines available will get you out of the tree you're in, but choosing the right vine will keep you going in the right direction, keep your rear-end from dropping to close to the alligators in the river, and set you up for the vines in the next tree. To make a long story short, we grabbed the Hi8 vine and Fairfax Cable Access Corporation (FCAC) seems to be swinging nicely toward the next tree. Here's why I think we made the right decision for us, by deciding to go with the Hi8 format.

It was important to make the transition from one format to another as painless as possible for our users. FCAC had always been a 3/4" shop. Our users liked the format, and to put it bluntly, it's the only format we offered for all aspects of production and cablecasting. Any change we made was going to effect everything and everyone.

Field Production. In 1990 we added 3 SONY DXC327 field cameras with Hi8 dockable recorders. Each package cost \$10,500 to replace the 3/4" field recorder and camera units. The goal was to achieve an equivalent performance and cost. In hind sight this may not have been the best use of our money. A year after buying the DXC327s we purchased 10 consumer Hi8 camcorders for about \$11,000 total. To our pleasant surprise we find it difficult to tell the difference between video shot with the industrial cameras and dockable recorders and the consumer model.

Another factor in our selection of Hi8 was the number of households in Fairfax County with camcorders. It was easy to visualize a county full of potential public access producers who already had half the tools necessary to produce programming. Happily, not only have we attracted home videophiles, but some existing producers have purchased their own Hi8 camcorders. And as more people purchase home video camcorders FCAC is well positioned to help them. The immediate future of public access may be in providing training, editing, and post-production facilities.

Post Production. Two things made Hi8 attractive for editing. First, SONY designed their source and record Hi8 decks (EVO9800s and EVO9850s) to work with existing 3/4" peripherals. We were able to create hybrid edit suites that have Hi8 and 3/4" as source deck options.

The other strong argument for Hi8 editing is SONY's EVO9700, an all-in-one editing system. The design is ideal for public access users. The EVO9700 is called a desk top editor. It has the size and feel of a PC. The deck has separate Hi8 source and record tape transports. On top of the deck is a monitor which uses "picture in picture" technology (the source or record can be the smaller picture). There is a hand held controller, time code can be placed on one of the two audio tracks after shooting, and the 9700 includes a basic character generator with a full size keyboard.

In one package the size of a desktop PC, it is possible to edit Hi8 field footage into a complete public access program. Because of the system's compact size we are considering checking the editors out to producers. They could shoot their footage, edit it at home, and bring everything back with a completed program. Now that sounds alot like public access to me.

Control Rooms and Cablecasting. This February we will replace the 3/4" source and record decks in our three studio control rooms and our mobile van with Hi8 decks. And although our engineer is a little leery of the hardness of the Hi8 in a playback environment we are going to install consumer rather than industrial Hi8 machines (\$800 vs \$2500) in cablecasting.

The Hi8 format has been a success at FCAC. As with all formats it has its strengths and weaknesses, and in our rapidly evolving technological environment we need to stay abreast of the next generation of formats, gizmos, and gadgets. For other access centers the move to a different format or using several formats may be ideal. For us the move to Hi8 with its portability, ease of use (and training), cost effectiveness, and interfability with homevideo was the right choice.

Remember the Tarzan theory, the secret is knowing where you want to go, grabbing the correct vine, and while your're swinging, looking at the vines on the next tree. FCAC is in full swing on the Hi8 vine at the moment, already it seems to me that the vines on the next tree are getting close. I think I see CD ROM and laserdisc vines — I hope I'm right.

Here's hoping all your swings are good ones.

Frederick Thomas is Executive Director of Fairfax Cable Access Corporation, 2929 Eskridge Road, Suite S, Fairfax, Virginia 22030. Telephone(703) 573-1090.

Technology Trickle Down: Affordable and Versatile

By Heid Mau

Most people read "emerging technologies" and think that it only applies to tools of the future and expensive tools at that. This past holiday season new consumer camcorders were available for as little as \$500. Prosumer camcorders and accessories are not far behind. Here are some examples where technology is getting applied in the consumer/prosumer industry:

- Just out is the Sony CCD-VX3 Hi8 camcorder, a unit weighing just under 4 lbs. and sporting three 1/2-inch sensors (yes, a three-chip camcorder that fits in one hand!). This camcorder has a 12X lens, manual override options, zebra striping, stereo audio, and an animation mode of four frames. Listed retail is \$3500.

- Camcorder personality traits: For those of you who want the slim and llite version of the

consumer camcorder — try the Hitachi Hi-8 VM-H39A camcorder. Weighing in at 1.3 lbs., it has a 16X zoom, stereo audio and is the size of VHS cassette. Retail around \$1600.

- Amiga users may want to check out Mandala VR — the software package from the Canadian company The Vivid Group. This software allows a camera image to merge with a computer image, not unusual except the software goes on to track the movement of the video image and adjusts the computer image in response. Retail \$495.

- How can your get even closer to your TV image? Try a pair of glasses from Virtual Vision Inc. Weighing under 5 oz., this optical wonder will let you pick up images (with the help of a reception belt) which with the help of mirrors seem to appear somewhere around 10 feet in front of the viewer. The product is due out this spring with an estimated retail of \$900.

- And in the not-so-affordable-but-on-its-way-department: Hitachi's Z-ML 1 camera also known as "The Gekko" (Japanese for "moon-light") can shoot video in light levels as low as .5 lux. This camera starts out with a retail price of \$27,500 and AVID Technologies, the leader in non-linear editing system that will allow you to output back to video when you're done. A complete starter system is available for under \$24,000.

Heidi Mau is the Operations Director at Columbus Community Cable Access Inc. (ACTV 21) in Columbus, Ohio, where in her spare time she reads a lot and dreams about getting a budget increase. Additional gizmo gossip was obtained from James Graham, Assistant Engineer at Miami Valley Cable Council in Centerville, Ohio and Carl Kucharski, Executive Director of ACTV 21 in Columbus, Ohio.

FINALLY, AN ECONOMICAL INTERACTIVE TELEVISION SYSTEM FOR ACCESS CHANNELS!

Response Television Corporation is an interactive television company, producing economical software and hardware turnkey systems for interactive applications on access channels. Maybe you've heard of us. RTC systems are in seven states now. Staffed by access producers, professionals, and supporters, RTC understands the needs of access channels, big and small.

If you'd like to learn more about how you can use RTC's interactive systems for your channels, communities, and community producers, call us at 1-800-369-6874.



Technology Innovation Center
Oakdale, Iowa 52319

WANTED! PRODUCERS FOR



Volunteers are wanted to produce segments for this national award winning show.

This video magazine features the stories and successes of people with developmental challenges such as mental retardation cerebral palsy and autism.

**For more information call or write:
"GIVEN OPPORTUNITIES..."**

ATTENTION MAGGIE LEE
4801 WEST PETERSON AVE. SUITE 500
CHICAGO, IL 60646
(312) 282-2207

Winner of National Education Film and Video Festival Silver Apple
ACE Award Nominee
Intercom Video Festival Gold Plaque Award

LITTLE CITY FOUNDATION

CTR CLASSIFIEDS

PRODUCER/DIRECTOR/TRAINER

New Jersey's largest cable system has an opening for a Producer/Director/Trainer in its community programming department.

Duties: Provide training for, and work with, interns and volunteers to produce community oriented programming. Direct studio programs and sports events. Produce and edit various programs (using a keyboard) and feature stories. Direct crew in the set-up of studio and remote productions -includes lighting, placement of cameras, running cables, location of microphones, color balancing of cameras.

Experience in community television and conducting volunteer training is a must. Must be able to lift equipment which weighs approximately 20 to 50 lbs. and have the ability to climb if necessary. A valid NJ drivers license is required. Must be able to drive company remote van. Experience in TV production is required. College degree in communications is preferred.

Equal Opportunity Employer M/F

Send resume to: Suburban Cablevision
800 Rahway Avenue
Union, NJ 07083

Attn: Human Resources Dept.

NOW AVAILABLE FROM THE ALLIANCE FOR COMMUNITY MEDIA

THE UPDATED YELLOW PAGES

An indispensable directory of

➤ Cable Consultants and Attorneys ➤ Video Production Equipment Vendors
with information that includes

- Alliance for Community Media (formerly NFLCP) Organizational Members ■ Alliance Public Policy Platform ■ 1984 Cable Act
- 1992 Cable Act ■ Senate Communications Subcommittee ■ House Communications Subcommittee ■ Federal Communications Commission ■ Independent Media Producers and Distributors ■ Related Organizations ■ Recommended Magazines and Publications ■ and much, much more!

**INCLUDES
THE 1992
CABLE ACT**

\$15 Members, \$20 Non-Members

TO ORDER THE UPDATED ALLIANCE FOR COMMUNITY MEDIA YELLOW PAGES BY MAIL.

NAME _____

ADDRESS _____

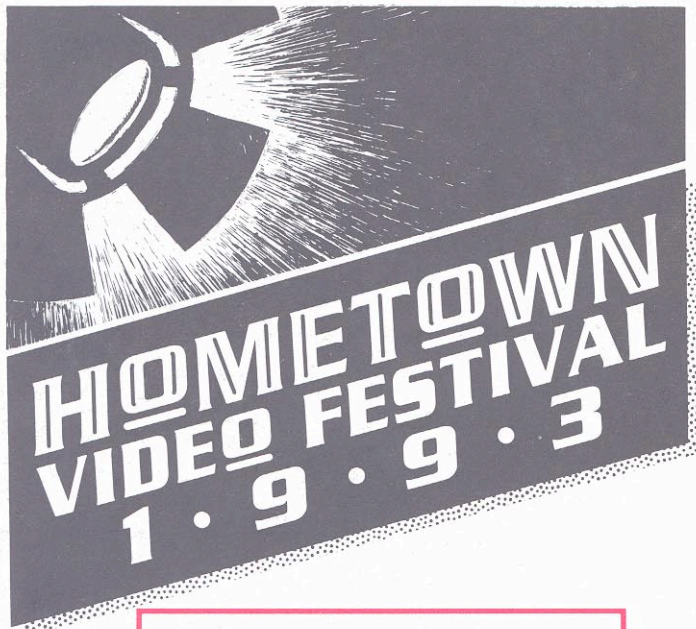
CITY _____

STATE _____

ZIP _____

PLEASE SEND ME _____ COPIES OF THE YELLOW PAGES @ \$ _____ EA. ENCLOSED IS \$ _____.

RETURN WITH CHECK OR MONEY ORDER TO: **ALLIANCE FOR COMMUNITY MEDIA,**
666 11th St. NW, Suite 806, Washington, DC 20001-4542.



CALL FOR ENTRIES

Entry Deadline: March 5, 1993

For Information & Entry Forms:
Hometown Video Festival
c/o The Buske Group
2015 J Street, Suite 28
Sacramento, CA 95814
(916) 441-6277

SPONSORS

Sustaining Sponsors:

MultiChannel News/Cablevision
Commodore Business Machines
Arts & Entertainment
Cable World
Videomaker

Category Sponsors:

Bravo
Mind Extension University
Cox Cable Communications
Cablevision Systems Development Corporation
3M Professional Audio/Video &
Specialty Products Division

Presented by:

Alliance for Community Media
(formerly the National Federation
of Local Cable Programmers)

THE ALLIANCE FOR COMMUNITY MEDIA

COMMUNITY TELEVISION REVIEW
15 Ionia SW, Suite 201
Grand Rapids, MI 49503-4113



Printed on Recycled Paper

Non-Profit Org.
U.S. Postage

PAID

Grand Rapids, MI
Permit 918

Ind-PRO/R Exp: 07-19-93

STEVE FORTRIEDE
17719 Auburn Road
Huntertown IN 46748